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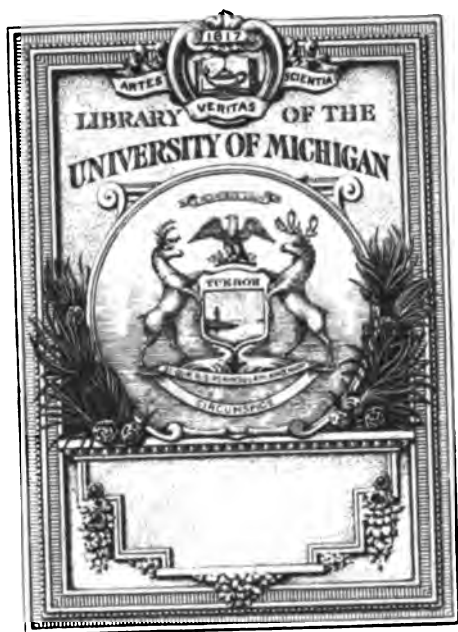
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BULLETIN

OF THE

OR

DEPARTMENT OF LABOR.

102-454

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CARROLL D. WRIGHT,
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PROTECTION OF WORKMEN IN THEIR EMPLOYMENT.

BY STEPHEN D. FESSENDEN, A. B., LL. M.

INTRODUCTION.

To those classes in the community the individual members of which depend for their existence upon the earnings from their labor, permanency of employment is undoubtedly the great desideratum. Receiving as a rule a fair daily, weekly, or monthly rate of pay, the continued, unbroken receipt of the same throughout the year would usually assure the wage-earner of at least a moderate living for himself and family. Many causes, however, conspire to prevent this permanency, and it is undoubtedly the general rule that some portion of the year, large or small, as the case may be, is passed by the average workman out of employment. This is true not only of the unskilled day laborer, but also of the skilled workman, the mechanic, etc. Among the various causes of this condition may be mentioned failure of work caused by business depression, either general or local, the supply of laborers of a certain class or classes exceeding the demand for their services, and the introduction of new and improved machinery, producing at least a temporary falling off in the demand for labor.

Such causes as the above, more of which could be specifically mentioned, arising from the economic condition of a country, or perhaps of the civilized world, are hardly capable of amelioration by the efforts of the legislator or of the civil authorities of any community in any broad and general way.

There are, however, causes at work which prevent men, able and willing to work, from obtaining employment or from retaining employment, which are not directly affected or caused by the great economic

principles underlying our civilization, such as the law of supply and demand, but arise from the acts of individuals, or aggregations of individuals, acting with more or less deliberate intent to produce the effect mentioned—loss of employment.

Such causes are, on the one hand, the action taken by employers of labor in discharging individual workmen for exercising civil or political rights contrary to the desire of the employer; in "blacklisting" employees who have left their service, thus almost inevitably preventing them from obtaining new employment; in "locking out" the employees in case of a threatened strike or a dispute arising between employer and employee, and, on the other hand, the action taken by employees in attempting to limit the number of workmen in certain trades by preventing the taking of apprentices therein by the employers; in attempting, in the case of strikes, by persuasion, intimidation, and even by force, to prevent new men from being employed by or continuing in the employ of the employer, and in attempting to cause the discharge of laborers not belonging to labor unions or organizations.

In such cases, more of which might easily be enumerated, it is neither at all times necessary, nor is it expedient, to allow affairs to work themselves out to a conclusion with no effort being made to settle them on a reasonable and just basis and to obtain for the laborer that opportunity to work which he is desirous of obtaining. The quality of selfishness so predominates in human nature that power, rather than strict right and justice, is apt to be the controlling force in the settlement of such matters, if they are left to settle themselves as between the parties immediately in interest, and, therefore, interference by legal authorities seems often not only proper but necessary.

The ways and means in and by which the Federal and State authorities may interfere for the protection of employees who are ready and willing to work, but are kept from so doing by means more or less removed from their own control, are not perhaps so generally understood, even in this country, as it is expedient that they should be, and an attempt will be made, in continuing, to describe and explain the more important powers which may be legally exercised in this direction by such authorities, and also to point out, more or less in detail, the particular abuses against which such action may be directed.

POSSIBLE OFFICIAL ACTION.

It may be stated as a general proposition that all measures that have been taken in the past or that may be taken in the future by the Federal and State authorities to protect employees from practices tending to prevent them from obtaining or retaining employment may be resolved into two classes, viz:

1. The enactment of statutes by the Federal Congress and the legislatures of the States directed against such practices; and

2. Action taken by the executive and judicial officers of the States, under authority derived from such statutes or from the common law, for the purpose of enforcing the provisions of the same or causing the penalties provided for the violation of such provisions to be enforced.

STATUTE LAW.

In the consideration of the first class the statutes may be considered as being of three kinds, those that are aimed at practices or deeds of the employers of labor, those directed against the deeds of employees, and those providing for action to be taken by third parties. While the above is true as a general proposition, yet many of these statutes, notably those aimed at the punishment of conspiracy and the prevention of intimidation, coercion, boycotting, and blacklisting, either in their terms apply to the acts both of the employers and employees or else are couched in such general language as to be fairly construed so to apply, and even those which provide for action to be taken by third parties, such as the laws providing for arbitration, etc., usually contain, also, provisions regulating the action of the parties in interest—the employer and employees. For this reason it is practically impossible to separate entirely these different kinds of statutes, and in what follows they will be treated of largely in a mass.

Many of the actions of both employers and employees, at which these statutes are directed, arise or grow out of labor disputes and their frequent consequences, strikes, lockouts, etc.

COMMON LAW—BLACKLISTING—BOYCOTTING—LABOR COMBINATIONS.

The prevention of employees from obtaining employment in such cases as above is usually brought about either from the action of the employer in "blacklisting" the workmen who have been engaged in a strike, etc., or in the action of the workmen, after they have left work, in attempting to prevent the employment of new men as a means of compelling the employer to yield to their demand.

Blacklisting, as the term is generally used, may be defined as the making by the employers of lists of names of employees against whom they have complaints, and the exchanging of said lists among themselves for the purpose of preventing such employees from obtaining new employment. Another form of blacklisting is that done by employees, or associations of employees, in making and circulating lists of nonunion men and warning union men not to work where they are employed.

It is doubtful if under the common law criminal responsibility could be fixed in cases of blacklisting, though technically, perhaps, such a practice might be held to be an unlawful combination or conspiracy.

It is probable, therefore, that no action could be taken in such cases by State authorities in the absence of definite statutes making blacklisting a criminal offense.

Under the common law it is held, generally, that workmen have the right to strike and leave work, either singly or in combination, at any time; that they may organize to improve their condition and to gain their ends; and that they may use peaceful means, persuasion, etc., to induce other workmen either to strike and leave their employment or to refrain from accepting employment with an employer against whom a strike has been declared, but that in order to make such strike effective they must not use unlawful means, such as intimidation, force, coercion, etc., and the use of such unlawful means will render those engaged in the strike guilty of conspiracy. No State has passed a statute even attempting to change the above-stated principle, and Pennsylvania has reaffirmed the same by practically restating it in a statute which is to be found on page 484 of Brightly's Purdon's Digest, edition of 1895, and which reads as follows:

SECTION 72. It shall be lawful for any laborer or laborers, workingman or workingmen, journeyman or journeymen, acting either as individuals or as the member of any club, society, or association, to refuse to work or labor for any person or persons, whenever, in his, her, or their opinion, the wages paid are insufficient, or the treatment of such laborer or laborers, workingman or workingmen, journeyman or journeymen, by his, her, or their employer is brutal or offensive, or the continued labor by such laborer or laborers, workingman or workingmen, journeyman or journeymen, would be contrary to the rules, regulations or by-laws of any club, society, or organization to which he, she, or they might belong, without subjecting any person or persons so refusing to work or labor to prosecution or indictment for conspiracy under the criminal laws of this Commonwealth: *Provided*, That this act shall not be held to apply to the member or members of any club, society, or organization, the constitution, by-laws, rules, and regulations of which are not in strict conformity to the constitution of the State of Pennsylvania and to the Constitution of the United States: *Provided*, That nothing herein contained shall prevent the prosecution and punishment, under existing laws, of any person or persons who shall, in any way, hinder persons who desire to labor for their employers from so doing, or other persons from being employed as laborers.

SEC. 73. It shall be lawful for employees, acting either as individuals or collectively, or as the members of any club, assembly, association, or organization, to refuse to work or labor for any person, persons, corporation, or corporations, whenever in his, her, or their opinion the wages paid are insufficient, or his, her, or their treatment is offensive or unjust, or whenever the continued labor or work by him, her, or them would be contrary to the constitution, rules, regulations, by-laws, resolution, or resolutions of any club, assembly, association, organization, or meeting of which he, she, or they may be a member or may have attended, and as such individuals or members or as having attended any meeting, it shall be lawful for him, her, or them to

devise and adopt ways and means to make such rules, regulations, by-laws, resolution, or resolutions effective, without subjecting them to indictment for conspiracy at common law or under the criminal laws for this Commonwealth:

Provided, first, That this act shall not be held to apply to the member or members of any club, assembly, association, organization, or meeting, the constitution, rules, regulations, by-laws, resolution, or resolutions of which are not in conformity with the Constitution of the United States and to the constitution of this Commonwealth:

Provided, second, That nothing herein contained shall prevent the prosecution and punishment, under any law, other than that of conspiracy, of any person or persons who shall, by the use of force, threats, or menace of harm to person or property, hinder or attempt to hinder any person or persons who may desire to labor or work for any employer from so doing for such wages and upon such terms and conditions as he, she, or they may deem proper:

And provided, third, That nothing herein contained shall prevent the prosecution and punishment of any persons conspiring to commit a felony.

The State of Texas, in chapter 153 of the acts of 1899, has recently passed the following law, somewhat similar in principle to that of Pennsylvania, above:

SECTION 1. From and after the passage of this act it shall be lawful for any and all persons engaged in any kind of work or labor, manual or mental, or both, to associate together and form trade unions and other organizations for the purpose of protecting themselves in their personal work, personal labor, and personal service, in their respective pursuits and employments.

SEC. 2. And it shall not be held unlawful for any member or members of such trade unions or other organization or association, or any other person, to induce or attempt to induce by peaceable and lawful means, any person to accept any particular employment, or quit or relinquish any particular employment in which such person may then be engaged, or to enter any pursuit, or refuse to enter any pursuit, or quit or relinquish any pursuit in which such person may then be engaged: *Provided,* That such member or members shall not have the right to invade or trespass upon the premises of another without the consent of the owner thereof.

SEC. 3. But the foregoing sections shall not be held to apply to any combination or combinations, association or associations of capital, or capital and persons, natural or artificial, formed for the purpose of limiting the production or consumption of labor's products, or for any other purpose in restraint of trade: *Provided,* That nothing herein contained shall be held to interfere with the terms and conditions of private contract with regard to the time of service, or other stipulations between employers and employees: *Provided, further,* That nothing herein contained shall be construed to repeal, affect, or diminish the force and effect of any statute now existing on the subject of trusts, conspiracies against trade, pools, and monopolies.

A number of other States have passed laws more or less resembling those of Pennsylvania and Texas. They are Colorado, Maryland,

Michigan, Minnesota, Montana, Nebraska, New Jersey, New York, North Dakota, West Virginia, and Wisconsin. These laws differ in their wording, but are all to the general effect that combinations of workingmen, formed for the purpose of seeking increase of wages, etc., are not of themselves unlawful. The Colorado statute, to be found in the Annotated Statutes of 1891, reads as follows:

SECTION 1295. It shall not be unlawful for any two or more persons to unite, or combine, or agree in any manner to advise or encourage, by peaceable means, any person or persons to enter into any combination in relation to entering into or remaining in the employment of any person, persons, or corporation, or in relation to the amount of wages or compensation to be paid for labor, or for the purpose of regulating the hours of labor, or for the procuring of fair and just treatment from employers, or for the purpose of aiding and protecting their welfare and interests in any other manner not in violation of the constitution of this State or the laws made in pursuance thereof: *Provided*, That this act shall not be so construed as to permit two or more persons, by threats of either bodily or financial injury, or by any display of force, to prevent or intimidate any other person from continuing in such employment as he may see fit, or to boycott or intimidate any employer of labor.

The Maryland statute, being part of article 27 of the Code of Public General Laws of 1888, is in the following language:

SECTION 31. An agreement or combination, by two or more persons, to do, or procure to be done, any act in contemplation or furtherance of a trade dispute between employers and workmen shall not be indictable as a conspiracy, if such act, committed by one person, would not be punishable as an offense; nothing in this section shall affect the law relating to riot, unlawful assembly, breach of the peace, or any offense against any person or against property.

The statutes of Minnesota, New Jersey, New York, and North Dakota are substantially like that of Maryland, above (see pages 19, 20, and 21), while the statute of West Virginia, to be found in section 14 on page 997 of the Code of 1891, is confined in its application to the case of mine employees, and reads as follows:

SECTION 14. * * * Nor shall any person or persons, or combination of persons, by force, threats, menace, or intimidation of any kind, prevent or attempt to prevent from working in or about any mine any person or persons who have the lawful right to work in or about the same, and who desire so to work; but this provision shall not be so construed as to prevent any two or more persons from associating themselves together under the name of Knights of Labor, or any other name they may desire, for any lawful purpose, or from using moral suasion or lawful argument to induce any one not to work in and about any mine.

The statutes of the States of Michigan, Montana, Nebraska, and Wisconsin are simply declarations to the effect that the provisions of their antitrust acts do not apply to combinations of laborers, etc.

That of Montana, section 325 of its Penal Code, is given below as a sample:

SECTION 325. The provisions of this chapter do not apply to any arrangement, agreement, or combination between laborers made with the object of lessening the number of hours of labor, or increasing wages, nor to persons engaged in horticulture or agriculture, with a view of enhancing the price of their products.

The courts of the States of New Jersey and New York, whose statutes, above mentioned, declare in the one case that certain peaceful acts done to deter laborers from working are not unlawful, and in the other case that such acts are not conspiracy, have held in opposition to the courts of Pennsylvania that a court of equity will not interfere by injunction to restrain strikers from committing such acts in the absence of evidence that violence, force, intimidation, or coercion are intended. In all the other States the common-law rule, as given above, is followed.

An organized attempt by employees to coerce an employer into compliance with some demand by combining to abstain from working for him or by compelling others to so abstain or to refrain from having any business relations with him has been called a "boycott," and it is of this boycott that it is usual to speak. A boycott may, however, and frequently has been, imposed by employers upon some other employer of labor for the purpose of forcing him out of business or to coerce him into complying with some demand. It may be said here that all law in this country, both common and statute, which relates to the subject of blacklisting and boycotting applies to all varieties of these offenses.

An effective boycott is probably always illegal under the common law, owing to the nature of the necessary means used to make it effective, viz, force, violence, intimidation, etc.

LEGISLATIVE ACTION.

BLACKLISTING.

Although numerous decisions of the courts, both State and Federal, have invariably held that the use of intimidation, etc., is illegal under the common law, yet many of the States have enacted statutes aimed at the suppression of such practices which either directly or in effect forbid the use of the "blacklist" or "boycott," of intimidation, coercion, force, etc., by either the employer or employee. A large number of States and one Territory have statutes which, in terms, forbid the practice of blacklisting. They are Alabama, Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Minnesota, Missouri, Montana, Nevada, North Dakota, Oklahoma, Utah, Virginia, and Wisconsin. These statutes are worded quite differently, but all alike tend to one end, the declaring the blacklist to be unlawful, and providing a

penalty for the use of the same. The statutes of all the States appearing in the above list, except Florida, Georgia, and Virginia, affect all classes of employers and, generally speaking, forbid the use of the blacklist by "any person." Those of Florida and Georgia apply to corporations only, and that of Virginia provides a penalty for any "corporation, manufacturer, or manufacturing company" using the blacklist. In the statutes of Illinois and Minnesota it is the conspiracy or combination of two or more persons to use the blacklist that is declared unlawful. The Alabama statute, being section 3763 of the Code of Alabama of 1886, as amended by act No. 321, acts of 1894-95, reads as follows:

SECTION 3763 (as amended by act No. 321, acts of 1894-95). Any person who, by threats of violence to person or property, prevents or seeks to prevent another from doing work or furnishing materials for or to any person engaged in any lawful business or who disturbs, interferes with or who shall prevent or attempt to prevent any discharged employee by printing or writing any list containing the name of any employee so discharged or who shall make any sign or token, character or figure, indicating that any discharged employee is upon any list so printed or written or in any other manner prevents or attempts to prevent the peaceful exercise of any lawful industry, business or calling by any other person, must, on conviction, be fined not less than ten nor more than five hundred dollars, and may also be imprisoned in the county jail or sentenced to hard labor for not more than twelve months.

The statute of Colorado, which comprises two sections of chapter 15 of the Annotated Statutes of 1891, is given below:

SECTION 239. No corporation, company, or individual shall blacklist or publish, or cause to be blacklisted or published, any employee, mechanic, or laborer discharged by such corporation, company, or individual, with the intent and for the purpose of preventing such employee, mechanic, or laborer from engaging in or securing similar or other employment from any other corporation, company, or individual.

SEC. 240. If any officer or agent of any corporation, company, or individual, or other person, shall blacklist, or publish, or cause to be blacklisted or published, any employee, mechanic, or laborer discharged by such corporation, company, or individual, with the intent and for the purpose of preventing such employee, mechanic, or laborer from engaging in or securing similar or other employment from any other corporation, company, or individual, or shall in any manner conspire or contrive, by correspondence or otherwise, to prevent such discharged employee from securing employment, he shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than fifty (50) nor more than two hundred and fifty (250) dollars, or be imprisoned in the county jail not less than thirty nor more than ninety days, or both.

Although, as has before been noted, this statute seems to include within its prohibition all classes of employers, yet the legislature of Colorado seems to have considered it necessary to enact another law, which, while still general in its application to employers, yet places

emphasis upon railroad and telegraph companies in connection with such prohibition. Said statute, being part of chapter 31 of the acts of 1897, is as follows:

SECTION 1. Any railroad or telegraph company, or any officer, agent, or employee of any railroad or telegraph company, or any other company, corporation, or individual doing business within the State of Colorado, shall not issue, circulate, or publish, or cause to be issued, circulated, or published, any blacklist, circular, or other statement regarding any person or persons who may have been in the employ of any of the above-mentioned railroads, telegraph or other companies, corporations, or individuals, which will deprive said person or persons of or in any way prevent them from obtaining employment.

SEC. 2. Any dismissed employee shall on demand be furnished by the aforesaid employer of said dismissed employee specific reasons in writing for said dismissal: *Provided*, That no person or corporation shall be held liable either civilly or criminally for any such reasons so given upon such request.

SEC. 4. Any violation of this act shall be a misdemeanor and punishable by fine of not less than five hundred (500) dollars nor more than one thousand (1,000) dollars, or imprisonment not less than sixty (60) days nor more than one year, or both fine and imprisonment, at the discretion of the court.

The second section of this act contains a provision designed to prevent the making by the employer of untruthful statements to third parties as to the cause of the discharge of the employee. A similar provision is found in the statutes of several of the other States in the above list, and in one case at least—that of Georgia—it has been declared unconstitutional, as will appear below. The law of Connecticut, but recently passed, is to be found in chapter 184, acts of 1897, in the following language:

Every employer who shall blacklist an employee with intent to prevent such employee from procuring other employment shall, upon conviction, be fined not more than two hundred dollars.

The statute of Florida, chapter 4207, acts of 1893, and that of Georgia, act No. 290, acts of 1890-91, page 183, are practically identical, and that of Georgia only is given here:

SECTION 1. If any railroad corporation or company or other corporation doing business in this State, or any agent or employer of any such company or corporation, after having discharged any employee from the service of any such company or corporation, shall prevent or attempt to prevent by word, writing, sign, or other means, directly or indirectly, such discharged employee from obtaining employment with any other person, company, or corporation, such person, agent, employer, company, or corporation shall be guilty of a misdemeanor, and shall be punished by a fine not exceeding five hundred dollars nor less than one hundred dollars, and such person, agent, employer, company, or corporation shall be liable in penal damages to such discharged person, to be recovered by civil action; but this section shall not be construed as prohibiting any person, agent, employer, company, or corporation from giving in writing any other person, com-

pany, or corporation to whom such discharged person has applied for employment a truthful statement of the reasons of such discharge, and shall furnish to such discharged employee on his application, to such address as may be given by such discharged employee, within ten days of such application made as aforesaid, a true copy of any such written statement.

SEC. 2. If any railroad or railway company or corporation, or other corporation, doing business in this State shall authorize or permit, with its knowledge and consent, any of its or their officers, agents, or employers to commit either or any of the acts prohibited in this act (except as in this act provided), such railroad or railway company or corporation, or other corporation, shall be liable in treble damages to such employee so prevented from obtaining employment, to be recovered by him in a civil action.

SEC. 3. It shall be the duty of any person, officer, agent, employer, or company or corporation aforesaid, after having discharged any employee from the service of any such corporation or company, upon written demand by such employee, to furnish to him, within ten days from the application for the same, a full statement in writing of the cause or causes of his discharge, and if any such person, officer, agent, employer, or company or corporation as aforesaid shall refuse within ten days after demand as herein provided to furnish such statement to such discharged employee, it shall be ever after unlawful for any such person, company, or corporation to furnish any statement of the cause of such discharge to any person or corporation or to in any way blacklist or to prevent such discharged person from procuring employment elsewhere, subject to the penalties prescribed in section 1 of this act. And on the trial of any person for offending against the provisions of this act, any other person who may have authorized or permitted, with knowledge and consent as aforesaid, any such offense, or who may have participated in the same, shall be a competent witness, and be compelled to give evidence, and nothing then said by such witness shall at any time be received or given in evidence against him in any prosecution against the said witness, except on an indictment for perjury, in any matter to which he may have testified, and on the trial of any such person for any violation of this act, the prosecution shall have the authority and process of the court trying the case to compel the production in court, to be used in evidence in the case, the books and papers of any such person, company, or corporation, and a failure to produce the same, after such reasonable notice as the court may in each case provide, shall be a contempt of court, and punishable as such as against the custodian or person, company, or corporation having the control or in charge of such books and papers, who shall fail to produce the same: *Provided*, That said written cause of discharge, when so made as aforesaid, at the request of such discharged employee, shall never be used as the cause for an action for slander or for libel, either civil or criminal, against the person or authority furnishing the same.

SEC. 4. It shall be the duty of any person, company, or corporation who has received any request or notice in writing, sign, word, or otherwise from any other person, company, or corporation, preventing or attempting to prevent the employment of any person discharged from the service of either of the latter, on demand of such discharged employee, to furnish to such employee, within ten days after such

demand, a true statement of the nature of such request or notice, and if in writing, a copy of the same, and if a sign, the interpretation thereof, with the name of the person, company, or corporation furnishing the same, with the place of business of the person or authority furnishing the same; and a violation of this section shall subject the offender to all the penalties, civil and criminal, provided by the foregoing sections of this act.

SEC. 5. The provisions of this act shall apply to and prevent, under all the penalties aforesaid, railroad companies or corporations, under the same general management and control but having separate divisions, superintendents or master mechanics, master machinists, or similar officers for separate or different lines, their officers, agents, and employers from preventing or attempting to prevent the employment of any such discharged person by any other separate division, or officer, or agent or employer of any such separate railroad line or lines.

Provisions similar to those contained in section 3 of the above act, to the effect that the cause of discharge in writing shall be furnished the discharged employee upon his demand, were contained in an act passed by the Georgia legislature in 1891, which act applied only to railroad, telegraph, express, and electric street-railway companies. The supreme court of the State in a decision rendered in 1894 declared said act to be unconstitutional in that it was a violation of the general private right of silence which is incident to the liberty of speech and writing secured by the constitution. The same reasoning would seem to apply to the provisions of section 3 of this act and the similar provisions contained in the acts of some of the other States of the above list. The statute of Illinois, which is now section 96 of chapter 38 of the Annotated Statutes of 1896, reads, practically in full, as follows:

SECTION 96. If any two or more persons conspire or agree together, or the officers or executive committee of any society or organization or corporation shall issue or utter any circular or edict, as the action of or instruction to its members, or any other persons, societies, organizations, or corporations, for the purpose of establishing a so-called boycott or blacklist, or shall post or distribute any written or printed notice in any place, with the fraudulent or malicious intent wrongfully and wickedly to injure the person, character, business, or employment, or property of another, * * * or to do any illegal act injurious to the public trade, health, morals, police, or administration of public justice, or to prevent competition in the letting of any contract by the State, or the authorities of any counties, city, town, or village, or to induce any person not to enter into such competition, * * * they shall be deemed guilty of a conspiracy; and every such offender, whether as individuals or as the officers of any society or organization, and every person convicted of conspiracy at common law, shall be imprisoned in the penitentiary not exceeding five years, or fined not exceeding \$2,000, or both.

The language of this statute is designed to apply in case of the use of the boycott by employees as well as that of the blacklist by employers, and makes those violating its provisions guilty of conspiracy. In

the following sections of the Annotated Statutes of 1894 will be found the law of Indiana upon this subject:

SECTION 7076. If any person, agent, company, or corporation, after having discharged any employee from his or its service, shall prevent, or attempt to prevent, by word or writing of any kind, such discharged employee from obtaining employment with any other person, company, or corporation, such person, agent, or corporation shall be guilty of a misdemeanor, and shall be punished by a fine not exceeding five hundred dollars nor less than one hundred dollars, and such person, agent, company, or corporation shall be liable in penal damages to such discharged person, to be recovered by civil action; but this section shall not be construed as prohibiting any person or agent of any company or corporation from informing in writing any other person, company, or corporation, to whom such discharged person or employee has applied for employment, a truthful statement of the reasons for such discharge.

SEC. 7077 (as amended by chapter 110, acts of 1895). If any railway company or any other company or partnership or corporation in this State shall authorize, allow, or permit any of its or their agents to blacklist any discharged employees, or attempt by words or writing or any other means whatever, to prevent such discharged employee or any employee who may have voluntarily left said company's service from obtaining employment with any other person or company, said company shall be liable to such employee in such sum as will fully compensate him, to which may be added exemplary damages.

SEC. 7078. It shall be the duty of any person, agent, company or corporation, after having discharged any employee from his or its service, upon demand of such discharged employee, to furnish him in writing a full, succinct, and complete statement of the cause or causes of his discharge, and if such person, agent, company, or corporation shall refuse so to do within a reasonable time after such demand, it shall ever after be unlawful for such person, agent, company, or corporation to furnish any statement of the cause of such discharge to any person or corporation, or in any way to blacklist or to prevent such discharged person from procuring employment elsewhere, subject to the penalties prescribed in * * * this act: *Provided*, That said written cause of discharge, when so made by such person, agent, company, or corporation at the request of such discharged employee, shall never be used as the cause for an action for slander or libel, either civil or criminal, against the person, agent, company, or corporation so furnishing the same.

Iowa's statute, now contained in sections 5027 and 5028 of the Code of 1897, is practically the same as the first two sections of the above statute of Indiana; and that of Montana, being sections 3390 to 3392 of the Political Code, is very similar, containing also the provision for the furnishing of the written cause of discharge upon demand. They will, therefore, not be given here. In chapter 174 of the acts of 1895, Minnesota enacted her prohibition of blacklisting as follows:

SECTION 1. It shall be unlawful for any two (2) or more employers or any two (2) or more corporations to combine or to agree to combine or confer together for the purpose of interfering with or pre-

venting any person or persons from procuring employment either by threats, promises, or by circulating or causing to be circulated blacklists, or for the purpose of procuring and causing the discharge of any employee or employees by any means whatsoever.

SEC. 2. No company, corporation, or partnership in this State shall authorize, permit, or allow any of its or their agents to nor shall any of its or their agents blacklist any discharged employee or employees, or by word or writing seek to prevent, hinder, or restrain such discharged employee or any employee who may have voluntarily left such company's or person's service from obtaining employment from any other person or company.

SEC. 3. No person or persons, employer or employers of labor, and no agent or agents, or officer or officers, employee or employees of any corporation or corporations, on behalf of such corporation or corporations, shall require, coerce or compel, demand or influence, any person or persons, employee or employees, laborer, or mechanic to enter into an agreement, either written or verbal, from such person or persons, employee, laborer, or mechanic, nor to join or become or remain a member of any labor organization, as a condition of such person or persons securing employment or continuing in the employment of any such person or persons, employer or employers, corporation or corporations.

SEC. 4. Any person or persons, employer or employers of labor, and any agents, representatives or employees of any person or persons, employer or employers, who shall be guilty of any violation of the provisions of any preceding section of this act shall be guilty of a misdemeanor, and upon conviction shall be punished by a fine not exceeding one hundred (100) dollars or imprisonment in the county jail for a period of not more than ninety (90) days.

SEC. 5. It shall be the duty of the county attorney of any county in which a civil action in the name of the State of Minnesota shall be brought in accordance with the provisions of this act to begin and prosecute all such suits to a termination whenever information is given him by any person that any employer or employers or corporation, or his or its officers, agents or employees have violated any of the provisions of this act.

Section 3 of this statute contains a provision in regard to the coercion of employees not to join, or continue as members of, labor organizations, which is contained in the statutes of a number of the States and which will be mentioned later.

The law of Missouri upon this subject is to be found in an act approved March 27, 1891, as follows:

SECTION 1. Every person who shall, in this State, send or deliver, or shall make or cause to be made, for the purpose of being delivered or sent, or shall part with the possession of any paper, letter, or writing, with or without a name signed thereto, or signed with a fictitious name, or with any letter, mark, or other designation, or shall publish or cause to be published any false statement for the purpose of preventing such other person from obtaining employment in this State or elsewhere, and every person who shall "blacklist" or cause to be "blacklisted" any person or persons, by writing, printing, publishing, or causing the same to be done, the name or any mark or

designation representing the name of any person in any paper, pamphlet, circular, or book, together with any false statement concerning said persons so named, or shall publish that any one is a member of any secret organization, for the purpose of preventing such other person from securing employment, or any person who shall do any of the things mentioned in this section for the purpose of causing the discharge of any person employed by any railroad or other company, corporation, individuals or individual, shall, on conviction, be adjudged guilty of a misdemeanor and punished by a fine not exceeding one thousand dollars, or imprisonment in the county jail, or by both such fine and imprisonment.

Chapter 75 of the acts of Nevada of 1895 reads as follows:

SECTION 1. Any person, association, company, or corporation within this State, or agent, or officer, on behalf of such person, association, company, or corporation, who shall hereafter willfully do anything intended to prevent any person who shall have for any cause left or been discharged from his or its employ from obtaining employment elsewhere in this State, shall be deemed guilty of a misdemeanor, punishable by a fine of not less than fifty (\$50) dollars, nor more than two hundred and fifty (\$250) dollars for each such offense, or imprisonment in the county jail at the rate of one day for each two (\$2) dollars of such fine.

The legislature of North Dakota, in two sections of the Revised Codes of 1895, treated this subject as follows:

SECTION 7041. Every person, corporation, or agent thereof, who maliciously interferes or hinders, in any way, any citizen of this State from obtaining employment or enjoying employment, already obtained, from any other person or corporation, is guilty of a misdemeanor.

SEC. 7042. Every corporation, officer, agent, or employee thereof, and every person of any corporation, on behalf of such corporation, who exchanges with or furnishes or delivers to any other corporation or any officer, agent, employee, or person thereof any "blacklist" is guilty of a misdemeanor.

In section 23 of article 1 and section 212 of article 17 of its constitution, adopted prior to the passage of these sections, North Dakota has the following provisions:

SECTION 23. Every citizen of this State shall be free to obtain employment wherever possible, and any person, corporation or agent thereof, maliciously interfering or hindering in any way, any citizen from obtaining or enjoying employment already obtained, from any other corporation or person, shall be deemed guilty of a misdemeanor.

SECTION 212. The exchange of "blacklists" between corporations shall be prohibited.

This State and Utah, as noted further along, are the only States having constitutional provisions on this subject.

The Territory of Oklahoma, in article 4 of chapter 13, acts of 1897, has passed the following law:

SECTION 1. No company, corporation, or individual shall blacklist or require a letter of relinquishment, or publish, or cause to be pub-

lished, or blacklisted, any employee, mechanic, or laborer discharged from or voluntarily leaving the service of such company, corporation, or individual, with intent and for the purpose of preventing such employee, mechanic, or laborer from engaging in or securing similar or other employment from any other corporation, company, or individual.

SEC. 2. Any person or persons, company, or corporation violating this act shall be guilty of a misdemeanor and shall, upon conviction thereof, be fined in any sum not less than one hundred dollars nor more than five hundred dollars, and any person so blacklisted shall have the right of action to recover damages.

The statute of the State of Utah is practically the same as that of Oklahoma, above, but the penalty imposed differs. It is contained in chapter 6 of the acts of 1896, and reads as below:

SECTION 1. No company, corporation, or individual shall blacklist or publish, or cause to be published or blacklisted, any employee, mechanic, or laborer discharged or voluntarily leaving the service of such company, corporation, or individual with intent and for the purpose of preventing such employee, mechanic, or laborer from engaging in or securing similar or other employment from any other corporation, company, or individual.

SEC. 2. If any officer or agent of any company, corporation, or individual, or other person, shall blacklist, or publish, or cause to be published, any employee, mechanic, or laborer discharged by such corporation, company, or individual with the intent and for the purpose of preventing such employee, mechanic, or laborer from engaging in or securing similar or other employment from any other corporation, company, or individual, or shall in any manner conspire or contrive, by correspondence or otherwise, to prevent such discharged employee from securing employment, he shall be deemed guilty of a felony and, upon conviction, shall be fined not less than five hundred dollars and be imprisoned in the penitentiary not less than sixty days.

Prior to the enactment of the above, Utah, in section 19 of article 12 and section 4 of article 16 of her constitution, adopted the following as law:

SECTION 19. Every person in this State shall be free to obtain employment whenever possible, and any person, corporation, or agent, servant, or employee thereof, maliciously interfering or hindering in any way any person from obtaining or enjoying employment already obtained from any other corporation or person shall be deemed guilty of a crime. The legislature shall provide by law for the enforcement of this section.

SECTION 4. The exchange of blacklists by railroad companies or other corporations, associations, or persons is prohibited.

Chapter 622 of the acts of 1891-92 contains the following legislation of Virginia upon this subject:

SECTION 1. No corporation, manufacturer, or manufacturing company doing business in this State, or any agent or attorney of such corporation, manufacturer, or manufacturing company, after having discharged any employee from the service of such corporation, manufacturer, or manufacturing company, shall willfully and maliciously

prevent or attempt to prevent, by word or writing, directly or indirectly, such discharged employee from obtaining employment with any other person or corporation. For any violation of this section the offender shall be guilty of a misdemeanor, and shall, on conviction thereof, be fined not less than one hundred nor more than five hundred dollars. But this section shall not be construed as prohibiting any corporation, manufacturer, or manufacturing company from giving in writing, on application from any other person or corporation, a truthful statement of the reason for such discharge.

Wisconsin has laid down the law in two sections of the Annotated Statutes of 1889, as follows:

SECTION 4466a. Any two or more persons who shall combine, associate, agree, mutually undertake, or concert together for the purpose of willfully or maliciously injuring another in his reputation, trade, business, or profession by any means whatever, or for the purpose of maliciously compelling another to do or perform any act against his will, or preventing or hindering another from doing or performing any lawful act, shall be punished by imprisonment in the county jail not more than one year, or by fine not exceeding five hundred dollars.

SEC. 4466b (as amended by chapter 240, acts of 1895). 1. It shall be unlawful for any two or more employers of labor, whether it be person, partnership, company, or corporation, to combine or agree to combine for the purpose of preventing any person or persons seeking employment from obtaining the same, or for the purpose of procuring and causing the discharge of any employee or employees, either by threats, promises, or by circulating blacklists, or causing the same to be circulated. 2. If any person, partnership, company, or corporation, after having discharged any employee from his or its service, shall prevent or attempt to prevent such discharged employee from obtaining employment with any other person, partnership, company, or corporation, either by threats, promises, or by blacklisting such discharged employee, and circulating said blacklist, such person, partnership, company, or corporation shall be deemed guilty of a misdemeanor. 3. If any person, partnership, company, or corporation shall authorize, permit, or allow any of its or their agents to blacklist any discharged employee or employees, or any employee or employees who may have voluntarily left the service of such person, partnership, company, or corporation, and to circulate the same, to prevent such employee or employees from obtaining employment from any other person, partnership, company, or corporation, such person, partnership, company, or corporation shall be deemed guilty of a misdemeanor. 4. Any person, partnership, company, or corporation who shall hereafter coerce or compel any person or persons to enter into an agreement not to join or become a member of any labor organization as a condition of such person or persons securing employment, or continuing in the employment of any such person, partnership, company, or corporation, shall be deemed guilty of a misdemeanor. 5. Any person, partnership, company, or corporation violating any of the provisions of the preceding sections [subsections] shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred dollars or more than five hundred dollars; and all fines so collected shall be paid into the treasury of the State of Wisconsin for the use of the common-school fund. 6. Nothing in this act [section] shall

be construed as prohibiting any person, partnership, company, or corporation from giving any other person, company, or corporation to whom such discharged employee has applied for employment, or to any bondsman or surety, a truthful statement of the reasons for such discharge when requested so to do by such employee or person to whom he has applied for employment, or by such bondsman or surety, but it shall be unlawful to give such information with the intent to blacklist, hinder, or prevent such employee from obtaining employment; nor shall anything in this act be construed as prohibiting any person, partnership, company, or corporation from keeping for his or its own information and protection a record showing the habits, character, and competency of his or its employees, and the cause of the discharge or voluntarily quitting of any employee of such employer.

The first section above might apply equally in case of boycotting by employees and in case of blacklisting. Clause 4 of section 4466b, above, relating to coercion of employees to compel them not to join labor organizations, is somewhat out of place in this connection, but will be referred to later on. In construing the above sections the United States circuit court for the eastern district of Wisconsin held they are declaratory of the common law and wholly condemn conspiracies to injure or oppress.

A Federal statute has recently been enacted by Congress which in effect prohibits blacklisting by certain employers. It is contained in chapter 370 of the acts of 1897-98, and the essential parts of it relating to this subject read as follows:

SECTION 1. The provisions of this act shall apply to any common carrier or carriers and their officers, agents, and employees, except masters of vessels and seamen, as defined in section forty-six hundred and twelve, Revised Statutes of the United States, engaged in the transportation of passengers or property wholly by railroad, or partly by railroad and partly by water, for a continuous carriage or shipment, from one State or Territory of the United States or the District of Columbia to any other State or Territory of the United States or the District of Columbia, or from any place in the United States to an adjacent foreign country, or from any place in the United States through a foreign country to any other place in the United States. The term "railroad" as used in this act shall include all bridges and ferries used or operated in connection with any railroad, and also all the road in use by any corporation operating a railroad, whether owned or operated under a contract, agreement, or lease; and the term "transportation" shall include all instrumentalities of shipment or carriage. The term "employees" as used in this act shall include all persons actually engaged in any capacity in train operation or train service of any description, and notwithstanding that the cars upon or in which they are employed may be held and operated by the carrier under lease or other contract: *Provided, however,* That this act shall not be held to apply to employees of street railroads and shall apply only to employees engaged in railroad train service. * * *

Sec. 10. Any employer subject to the provisions of this act, and any officer, agent, or receiver of such employer * * * who shall, after having discharged an employee, attempt or conspire to prevent such

employee from obtaining employment, or who shall, after the quitting of an employee, attempt or conspire to prevent such employee from obtaining employment, is hereby declared to be guilty of a misdemeanor, and, upon conviction thereof in any court of the United States of competent jurisdiction in the district in which such offense was committed, shall be punished for each offense by a fine of not less than one hundred dollars and not more than one thousand dollars.

BOYCOTTING.

The States of Colorado and Illinois have passed laws which in direct terms forbid boycotting. The Colorado statute, being part of chapter 31 of the acts of 1897, is in the language following:

SECTION 3. It shall be unlawful for any person or persons, or combination of persons, or society, or union, to establish or institute, or engage in a boycott against any individual, firm, or corporation carrying on any kind of trade or business, by agreeing not to patronize, trade, or do business with any such individual, firm, or corporation, or to induce others not to so patronize, trade, or do business with any such individual, firm, or corporation.

SEC. 4. Any violation of this act shall be a misdemeanor and punishable by fine of not less than five hundred (500) dollars nor more than one thousand (1,000) dollars, or imprisonment not less than sixty (60) days nor more than one year, or both fine and imprisonment, at the discretion of the court.

The statute of Illinois has already been recited on page 11.

Few, if any, cases under the above blacklisting and boycotting statutes appear to have come before the courts. At the present time but three cases hinging on the legality of a blacklist are available, and these were all decided under the principle of the common law in States having no statute law upon the subject. These cases simply upheld the right of a blacklisted employee to recover damages for the deprivation of employment caused by the blacklist and did not touch upon the question of the criminal liability of the blacklisting employer.

While no decisions can be found construing the above statutes of Colorado and Illinois, which directly forbid the use of the boycott, yet there are many decisions in the reports which relate to boycotting, but which were made in cases arising under the conspiracy laws of the States or under those laws which, while not forbidding boycotting in terms, do forbid the use of threats, intimidation, coercion, etc., which make up the illegal features of a boycott.

CONSPIRACY.

The conspiracy laws of a number of the States contain provisions declaring the combining of two or more persons for the purpose of injuring the business of any other person, preventing one from exercising his lawful trade or calling, by force, intimidation, etc., preventing anyone from obtaining employment, causing the discharge of

anyone, etc., to be conspiracy and punishable. The following States have enacted laws of the above nature: Florida, Illinois, Maine, Minnesota, Mississippi, New Jersey, New York, North Dakota, Pennsylvania, South Dakota, and Wisconsin. The Florida statute, contained in chapter 4144, acts of 1893, reads as follows :

SECTION 1. If two or more persons shall agree, conspire, combine, or confederate together for the purpose of preventing any person or persons from procuring work in any firm or corporation, or to cause the discharge of any person or persons from work in such firm or corporation, or if any person or persons shall verbally or by a written or printed communication threaten any injury to the life, property, or business of any person for the purpose of procuring the discharge of any workman in any firm or corporation, or to prevent any person or persons from procuring work in such firm or corporation, such person or persons so combining shall be deemed guilty of a misdemeanor, and upon conviction [thereof] shall be punished by fine not exceeding five hundred dollars each or by imprisonment not exceeding one year.

The language of this section is such as to, apparently, equally prohibit blacklisting with boycotting or any other means of keeping a laborer from obtaining employment. The statute of Illinois has already been noted on page 11, and that of Maine, being section 18 of chapter 126 of the Revised Statutes of 1883, is in the following language:

SECTION 18. If two or more persons conspire and agree together, with the fraudulent or malicious intent wrongfully and wickedly to injure the person, character, business, or property of another; or to do any illegal act injurious to the public trade, * * * they are guilty of a conspiracy, and every such offender, and every person convicted of conspiracy at common law, shall be punished by imprisonment for not more than three years, or by fine not exceeding one thousand dollars.

These two latter statutes are practically the same excepting a difference in the penalties prescribed and the fact that the words boycott or blacklist are not in the Maine statute. In a case arising under the Illinois statute, heard in the criminal court of Cook County, it was held that the words "wrongfully and wickedly" are to be understood as meaning the use of means in themselves wrongful and wicked independently of combination, and that if the means used to accomplish the desired end are criminal or constitute an actionable civil wrong they must be regarded as wrongful and wicked under the statute, otherwise not. The wording of the conspiracy statute of Minnesota, which is contained in the General Statutes of 1894, is as follows:

SECTION 6423. If two or more persons conspire, either

* * * * *

5. To prevent another from exercising a lawful trade or calling, or doing any other lawful act, by force, threats, intimidation, or by interfering or threatening to interfere, with tools, implements, or

property belonging to or used by another, or with the use or employment thereof; or

6. To commit any act injurious to the public health, to the public morals, or to trade or commerce, or for the perversion or obstruction of justice, or of the due administration of the laws—

Each of them is guilty of a misdemeanor.

SEC. 6424. No conspiracy is punishable criminally unless it is one of those enumerated in the last section, and the orderly and peaceable assembling or cooperation of persons employed in any calling, trade, or handicraft, for the purpose of obtaining an advance in the rate of wages or compensation, or of maintaining such rate, is not a conspiracy.

SEC. 6425. No agreement, except to commit a felony upon the person of another, or to commit arson or burglary, amounts to a conspiracy, unless some act besides such agreement be done to effect the object thereof by one or more of the parties to such agreement.

The statutes of Mississippi (sec. 1006, Annotated Code of 1892), New York (secs. 168 to 170, Penal Code), North Dakota (sec. 7037, Revised Codes of 1895), and South Dakota (sec. 6425, Compiled Laws of 1887), are to all intents identical with that of Minnesota, above, except that those of Mississippi and South Dakota do not contain provisions similar to those of section 6424, above.

In cases arising under the New York statute the court of appeals, the highest court of the State, has held that a peaceable withdrawal from employment, commonly called a strike, however extensive, for the purpose of obtaining an advance in the rate of wages or of maintaining such rate, is not an offense against its provisions; that a combination which brings about a strike for unlawful purposes is a criminal conspiracy; that the unlawful purpose of a strike may be evidenced by force, threats, or intimidation to prevent another from exercising a lawful trade or calling; that section 170 of the Penal Code, which reads as follows: "The orderly and peaceable assembling or cooperation of persons employed in any calling, trade, or handicraft, for the purpose of obtaining an advance in the rate of wages or compensation or of maintaining such rate is not a conspiracy," does not authorize a combination of individuals to compel, by means condemned in section 168 of that code (force, threats, intimidation, etc.), workmen to join the cooperating forces and to leave their employment or to punish those who are supposed to be hostile to such combination, and that such a combination intended to drive an objectionable person from a certain district and to prevent him from working therein is a criminal conspiracy. The same court has also held that since the passage of section 170, above, an employer is not entitled to an injunction against striking employees for inducing others, by entreaty and persuasion, to leave his employment where no intimidation is used. The supreme court of New York, in a case which seems never to have been appealed to the court of appeals, decided that, as the law stands since the enact-

ment of the above statute, a combination of manufacturers has the right to lock out all operatives connected with an association of employees, because of demands which it considers unjust, made by such association of employees upon a member of the combination of manufacturers, and that such association of employees has an equal right to endeavor to persuade those who have been accustomed to deal with the members of the manufacturers' combination to discontinue their trade. In another case, also unappealed, the supreme court held that since the enactment of section 170 no injunction can be granted against a confederation of persons whose object is to entice away workmen from their employer's employ, in the absence of any sufficient evidence that violence, force, intimidation, or coercion is intended against such workmen; and in another unappealed case the court of oyer and terminer of New York County has held that to constitute intimidation it is not necessary that there should be any overt act of violence, or any direct threat by word of mouth, but that it is enough if the attitude of those engaged in the overt act is intimidating and this, in the case of a strike, may be shown by their numbers, their methods, their placards, their circulars, and their devices. In another similar case the same court held that a combination of men to prevent the exercise of a lawful calling, by congregating near the doors of the person to be injured, by printing circulars descriptive of supposed grievances, and by distributing the same near or about his doors to customers and passers by, is conspiracy under these sections.

The State of New Jersey, in section 236, on page 1093 of the General Statutes of 1895, enacts the following concerning conspiracy:

SECTION 236. If two or more persons shall combine, unite, confederate, conspire, or bind themselves by oath, covenant, agreement, or other alliance to commit any crime, * * * or to cheat and defraud any person of any property by any means which are in themselves criminal, or to cheat and defraud any person of any property by any means which, if executed, would amount to a cheat, * * * or to commit any act for the perversion or obstruction of justice, or the due administration of the laws, they shall, on conviction, be deemed guilty of a conspiracy, and shall be punished by imprisonment at hard labor not exceeding two years, or by a fine not exceeding five hundred dollars, or both; but no agreement to commit any crime other than murder, manslaughter, sodomy, rape, arson, burglary, or robbery, shall be deemed a conspiracy, unless some act in execution of such agreement be done to effect the object thereof by one or more of the parties to such agreement: *Provided*, That nothing in this section shall be construed to apply to any person or persons lawfully and by peaceful means persuading, advising, or encouraging other persons to enter into any combination for or against leaving or entering into the employment of other persons.

In a case heard in 1867 the supreme court of New Jersey decided that it was an indictable conspiracy under this statute for several employees to combine and notify their employer that unless he dis-

charges certain enumerated persons they will, in a body, quit his employment. Subsequent to that date the legislature passed a law which appears below, in its present form, as section 23, page 2344 of the General Statutes of 1895:

SECTION 23. It shall not be unlawful for any two or more persons to unite, combine, or bind themselves by oath, covenant, agreement, alliance, or otherwise, to persuade, advise, or encourage, by peaceable means, any person or persons to enter into any combination for or against leaving or entering into the employment of any person, persons, or corporation.

This law has been alluded to before in this article, on page 6, and appears, on its face, to nullify the effect of the decision of the supreme court above mentioned. The chancery court of New Jersey held in a case decided in 1890 that since the enactment of the above section it is not unlawful for members of an association to combine together for the purpose of securing the control of the work connected with their trade, and to endeavor to effect such purpose by peaceable means; also that a court will not interfere by injunction to restrain the acts of an association of persons, even though said acts may be detrimental to trade and injurious to individual business, when the acts are such as are declared by the above statute to be not unlawful.

The Pennsylvania statute has been previously quoted in another connection, on page 4. In cases arising under the same, the courts of the State have decided that members of trade unions who engage in a strike and notify other members to strike can not be held for a conspiracy unless they hinder the others from working by using force, threats, or menaces; and that while these sections would relieve strikers from criminal penalties for the commission of many acts tending to prevent other laborers from working, said acts not amounting to force, intimidation, etc., yet they did not make such acts lawful, and a court of equity would issue an injunction against them in a proper case.

In her statute prohibiting blacklisting, shown on page 16, Wisconsin practically includes a conspiracy law, and makes the last in the list of the States having such legislation.

The Federal statutes on conspiracy are rather differently worded than any of the preceding, and were evidently not directed primarily at cases arising from labor disputes or controversies. They are contained in the following sections of the Revised Statutes of 1878:

SECTION 5440. If two or more persons conspire either to commit any offense against the United States or to defraud the United States in any manner or for any purpose, and one or more of such parties do any act to effect the object of the conspiracy, all the parties to such conspiracy shall be liable to a penalty of not less than one thousand dollars and not more than ten thousand dollars, and to imprisonment not more than two years.

Sec. 5508. If two or more persons conspire to injure, oppress, threaten, or intimidate any citizen in the free exercise or enjoyment of any right or privilege secured to him by the Constitution or laws of the United States, or because of his having so exercised the same; or if two or more persons go in disguise on the highway, or on the premises of another, with intent to prevent or hinder his free exercise or enjoyment of any right or privilege so secured, they shall be fined not more than five thousand dollars and imprisoned not more than ten years; and shall, moreover, be thereafter ineligible to any office, or place of honor, profit, or trust created by the Constitution or laws of the United States.

While section 5508 seems by its terms to be applicable in any case where an employee is kept from work by the use of intimidation, etc., it does not appear that it has been considered by the courts in this connection. All cases of this character which involve the element of conspiracy seem to have been considered in the Federal courts as coming within the provisions of section 5440, above, and involving conspiracy against the United States, and all the decisions which can be found treat this question of conspiracy under said section in connection with the violation of some other statute or statutes of the United States, such as that directed at the obstruction of the United States mails, the antitrust act, and the interstate-commerce act. That statute which prohibits the obstruction of the mail is section 3995 of the Revised Statutes of the United States, and reads as follows:

SECTION 3995. Any person who shall knowingly and willfully obstruct or retard the passage of the mail, or any carriage, horse, driver, or carrier carrying the same, shall, for every such offense, be punishable by a fine of not more than one hundred dollars.

In strikes by railroad employees, of which many have occurred in this country, efforts are usually made by the strikers or their sympathizers, or both, to prevent the operation of trains by new men. To accomplish this purpose many means are resorted to, as persuasion, threats, force, and violence, directed against the new employees, and the use of violence in destroying or injuring the cars, engines, or roadbeds of the railroad company. Should their efforts in this direction prove at all successful, and the railroad company find it impossible to operate the road with a new set of employees, it is plain that it will, in time, be likely to yield, at least in part, to the demands of the striking employees, in order, by getting them back, to be able to resume business. If, however, the employees do succeed in stopping the movement of trains as above, in so doing it is probable that they will also obstruct the movement of the mails and bring themselves in conflict with the provisions of the above statute or with those of the interstate-commerce or antitrust acts mentioned below.

The interstate-commerce act, originally chapter 104 of the acts of 1886-87, second session Forty-ninth Congress, in its present form, as

amended since its passage, forbids many practices which would tend to prevent the free conduct of commerce between the States. While the act has other provisions, for the present purpose it is not necessary to describe it more in detail or to attempt to present the act itself. The antitrust act, being chapter 647 of the acts of Congress of 1889-90, and approved July 2, 1890, is designed for the prevention of trusts and monopolies. Sections 1 and 3 of the act are all that it is essential to show or discuss in this connection. They are as follows:

SECTION 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 3. Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or between any such Territory or Territories and any State or States or the District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is hereby declared illegal. Every person who shall make any such contract or engage in any such combination or conspiracy shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

In the consideration of the above Federal statutes in their effect upon the actions of those who are endeavoring for one reason or another to prevent workmen from obtaining or retaining employment the Federal courts have made many decisions. They have held that while the statutes above mentioned, other than the act on conspiracy, provide penalties to be imposed on those violating these provisions, yet the law on conspiracy, as expressed in section 5440, above, regards the act of unlawful combination and confederacy to commit such offenses as requiring an additional restraint to those provided for the commission of the offenses themselves; that section 5440 applies to conspiracies that affect private rights or interests which are protected by the criminal laws of the United States; that a combination to incite all railway employees to suddenly quit their service, without any dissatisfaction with the terms of their own employment, in order to starve the railroad companies and the public into compelling an owner of cars used in operating the road to pay his employees more wages, and when the members intend to stop all mail trains as well as other trains, and do delay many, in violation of section 3995, Revised Statutes, is an unlawful conspiracy under section 5440, although the obstruction is effected by merely quitting employment; that it is a violation of section 3995 for

one to prevent the running of a mail train as made up, even though he is willing that the mail car alone shall go on and his purpose is other than to retard the mails; that where the transportation of the mails and interstate commerce has been long interrupted by the refusal of the employees of a railroad company to move trains carrying Pullman cars it is the duty of the railroad company to use every effort to move the mails and interstate commerce, and any willful failure to perform this duty is a violation of section 3995; that although section 3995 was originally passed prior to the introduction into the United States of the method of transporting mail by railroads, yet it is equally applicable to the modern system of conveyance, and protects alike the transportation of the mail by the "limited express" and the old-fashioned stage coach; that an agreement between two or more persons that employees of railroads carrying the mails and conducting interstate commerce should quit work, and that all others should, by threats and violence, be prevented from taking their places, constitutes a criminal conspiracy under the above statutes; that when two or more members of a labor association, for the purpose of advancing personal ambition or satisfying private malice, by concert insist upon or demand, under effective penalties and threats, the members of the association quitting their employment, to the obstruction of the mails or of interstate commerce, they are guilty of criminal conspiracy, and that where two or more men agree among themselves, either for the purpose of creating sympathy in a certain strike or for any other purpose, to cause trains carrying mails or interstate commerce to be stopped, or to discharge their employees or refuse to employ new men, so as to stop such trains, they are guilty of conspiracy under these acts.

In the case of *United States v. Cassidy*, decided in 1895, the district court of the United States for the northern district of California held in accordance with the following, quoted from the syllabus of the case:

The word "commerce," as used in the act of July 2, 1890 [anti-trust act], to protect trade and commerce against unlawful restraints and monopolies, and in the Constitution of the United States, has a broader meaning than the word "trade." Commerce among the States consists of intercourse and traffic between their citizens, and includes the transportation of persons and property as well as the purchase, sale, and exchange of commodities.

While the primary object of the statute of July 2, 1890, was doubtless to prevent the destruction of legitimate and healthy competition in interstate commerce by the engrossing and monopolizing of the markets for commodities, yet its provisions are broad enough to reach a combination or conspiracy that will interrupt the transportation of such commodities and persons from one State to another.

Pullman cars in use upon railroads are instrumentalities of commerce.

The employees of railway companies have a right to organize for mutual benefit and protection and for the purpose of securing the

highest wages and the best conditions they can command. They may appoint officers, who shall advise them as to the course to be taken in their relations with their employer, and they may, if they choose, repose in their officers authority to order them, or any of them, on pain of expulsion from their union, peaceably to leave the employment because the terms thereof are unsatisfactory. But it is unlawful for them to combine and quit work for the purpose of compelling their employer to withdraw from his relations with a third party, for the purpose of injuring that third party.

A strike, or a preconcerted quitting of work, by a combination of railroad employees, is, in itself, unlawful, if the concerted action is knowingly and willfully directed by the parties to it for the purpose of obstructing and retarding the passage of the mails, or in restraint of trade and commerce among the States.

A quotation from the syllabus of the decision in the case of *Waterhouse et al. v. Cromer*, decided in 1893 by the circuit court of the United States for the western district of Georgia, southern division, reads as follows:

Construing section 1 of the act of July 2, 1890 [chap. 647, acts of 1889-90, antitrust act], the act of February 4, 1887 [chap. 104, acts of 1886-87, interstate-commerce act], and the act of March 7, 1889 [amending the interstate-commerce act], together with this section [5440], it will be seen that a combination of persons, without regard to their occupation, which will have the effect to defeat the provisions of these acts inhibiting discriminations in the transportation of freight and passengers, and to restrain the trade and commerce of the country will be obnoxious to the penalties contained in this section. Now, it is true that in any conceivable strike upon the transportation lines of this country, whether main lines or branch roads, there will be interference with and restraint of interstate or foreign commerce. This will be true also of strikes upon telegraph lines, for the exchange of telegraphic messages between people of different States is interstate commerce. In the presence of these statutes, and in view of the intimate interchange of commodities between people of several States of the Union, it will be practically impossible hereafter for a body of men to combine to hinder and delay the work of the transportation company without becoming amenable to the provisions of these statutes. And a combination or agreement of railroad officials or other representatives of capital, with the same effect, will be equally under the ban of the penal statutes. It follows, therefore, that a strike, or boycott, if it was ever effective, can be so no longer.

Many more such decisions could be noted, but the above sufficiently shows the effect that the statutes cited and their enforcement may have in protecting the laborer or workman desirous of obtaining or retaining employment.

INTIMIDATION, COERCION, ETC.

In addition to the conspiracy laws, State and Federal, as shown and discussed above, numerous statutes exist forbidding the use of threats, intimidation, coercion, etc., in efforts made to compel others to do or not to do acts which they have the legal right to do or to abstain

from doing. These laws undoubtedly apply in all cases of boycotting where intimidation, etc., is used, and under some, at least, of them, as also under the conspiracy laws last discussed, it would seem from their language that employers guilty of blacklisting might be prosecuted. It is not known, however, that any such case has arisen or been decided in the courts. Said statutes have frequently been held to apply to employees engaged in strikes when attempting to use the boycott and to prevent the employment of new men. The States having such laws are: Alabama, Colorado, Connecticut, Georgia, Illinois, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New York, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Texas, Vermont, West Virginia, and Wisconsin.

Alabama's law on this subject is contained in section 3763 of the code of 1886, as amended by act No. 321, acts of 1894-95, a statute which also prohibits blacklisting and has been shown on page 8; that of Colorado in section 1295 of the Annotated Statutes of 1891, to be found on page 6; that of Pennsylvania in section 73, on page 484 of the Digest, edition of 1895, recited on page 4, and that of West Virginia is quoted on page 6. In the statutes of Colorado and Pennsylvania the prohibition against intimidation is indirect, but none the less plainly intended, and in a case arising under the statute of Pennsylvania the court held that while strikers may legally organize themselves and use persuasive means to get others to join them and to quit work, it is a criminal offense to attempt to gain their point by the slightest use of force or intimidation or unlawful threats or menaces of harm to persons or property. The statute of West Virginia is confined in its application to the case of coal-mine employees.

The Connecticut statute, found in the General Statutes of 1888, reads as follows:

SECTION 1518. Every person who shall threaten, or use any means to intimidate any person to compel such person, against his will, to do or abstain from doing any act which such person has a legal right to do, or shall persistently follow such person in a disorderly manner, or injure, or threaten to injure, his property with intent to intimidate him, shall be fined not more than one hundred dollars, or imprisoned not more than six months.

This statute is the only one of this kind, among all those passed by the States above enumerated, which is so general in its terms and does not directly prohibit the attempt to keep anyone from employment by the use of intimidation, etc. The supreme court of the State, however, has held that a conspiracy of workmen to intimidate the publishers of a newspaper, to compel said publishers to discharge against their will certain of their workmen, and to employ the conspirators in their place, falls within the prohibition of this section.

The Georgia statute upon this subject, found on page 107 of the acts of 1887, and denominated act No. 347, is as follows:

SECTION 1. If any person or persons, by threats, violence, intimidation, or other unlawful means, shall prevent or attempt to prevent any person or persons in this State from engaging in, remaining in, or performing the business, labor, or duties of any lawful employment or occupation; or if any person or persons, singly or together, or in combination, shall conspire to prevent or attempt to prevent any person or persons by threats, violence, or intimidation from engaging in, remaining in, or performing the business, labor, or duties of any lawful employment or occupation; or if any person or persons, singly or by conspiring together, shall hinder any person or persons who desire to labor from so doing, or hinder any person by threats, violence, or intimidation from being employed as laborer or employee, or by the means aforesaid shall hinder the owner, manager, or proprietor for the time being from controlling, using, operating, or working any property in any lawful occupation, or shall by such means hinder such persons from hiring or employing laborers or employees, such person or persons so offending shall be deemed guilty of a misdemeanor, and on conviction be punished as prescribed in section 4310 of the Code of Georgia.

Section 4310, referred to in the above act, is in the following language:

SECTION 4310. Accessories after the fact, except where it is otherwise ordered in this code, shall be punished by a fine not to exceed one thousand dollars, imprisonment not to exceed six months, to work in the chain gang on the public works, or on such other works as the county authorities may employ the chain gang, not to exceed twelve months, and any one or more of these punishments may be ordered in the discretion of the judge: *Provided*, That nothing herein contained shall authorize the giving the control of convicts to private persons, or their employment by the county authorities in such mechanical pursuits as will bring the products of their labor into competition with the products of free labor.

The Illinois statute, to be found in chapter 38 of the Annotated Statutes of 1896, is in words as follows:

SECTION 294. If any two or more persons shall combine for the purpose of depriving the owner or possessor of property of its lawful use and management, or of preventing, by threats, suggestions of danger, or any unlawful means, any person from being employed by or obtaining employment from any such owner or possessor of property, on such terms as the parties concerned may agree upon, such persons so offending shall be fined not exceeding \$500, or confined in the county jail not exceeding six months.

SEC. 295. If any person shall, by threat, intimidation or unlawful interference, seek to prevent any other person from working or from obtaining work at any lawful business, on any terms that he may see fit, such person so offending shall be fined not exceeding \$200.

SEC. 296. Whoever enters a coal bank, mine, shaft, manufactory, building, or premises of another, with intent to commit any injury thereto, or by means of threats, intimidation, or riotous or other unlaw-

ful doings, to cause any person employed therein to leave his employment, shall be fined not exceeding \$500, or confined in the county jail not exceeding six months, or both.

Illinois has enacted another statute directed against intimidation, etc., but applying only to railroad companies, in section 129 of chapter 114 of the Annotated Statutes of 1896. Said statute appears on page 40, under another head.

The only statute of Kentucky upon this subject applies in the case of intimidation, etc., used against those engaged in the transportation of passengers and freight. It is contained in section 803 of chapter 32 of the Statutes of 1894, and is published on page 41.

The Revised Laws of Louisiana contains the statute law of that State relative to intimidation, which applies only to the coercion, etc., of employees on steamboats. It appears below:

SECTION 944. Any person or persons who may, by violence or threats or in any manner intimidate and prevent another from shipping upon any steamboat within this State, or who shall thus interfere with or prevent any person who is one of the crew of a steamboat from discharging his or her duty, or unlawfully interfere with any laborer who may be taking on board or discharging cargo from a steamboat within the State of Louisiana, shall be deemed guilty of a misdemeanor, and, upon conviction before any justice of the peace of this State or recorder of the city of New Orleans, be fined not less than twenty dollars and costs of prosecution, and imprisoned not less than twenty days in the parish jail.

The State of Maine has enacted two statutes upon this subject, one being section 9 of chapter 123 of the Revised Statutes of 1883, and the other section 1 of chapter 303, acts of 1889. They both appear below:

SECTION 9. Whoever, alone, or in pursuance or furtherance of any agreement or combination with others, to do, or procure to be done, any act in contemplation or furtherance of a dispute or controversy between a gas, telegraph, or railroad corporation and its employees or workmen, wrongfully and without legal authority, uses violence towards, or intimidates any person, in any way or by any means, with intent thereby to compel such person against his will to do, or abstain from doing, any act which he has a legal right to do or abstain from doing; or, on the premises of such corporation, by bribery, or in any manner or by any means, induces, or endeavors or attempts to induce such person to leave the employment and service of such corporation with intent thereby to further the objects of such combination or agreement; or in any way interferes with such person while in the performance of his duty; or threatens or persistently follows such person in a disorderly manner, or injures or threatens to injure his property with either of said intents, shall be punished by fine not exceeding three hundred dollars, or imprisonment not exceeding three months.

SECTION 1 (as amended by chapter 127, acts of 1891). Any employer, employee, or other person, who, by threats of injury, intimidation or

force, alone or in combination with others, prevents any person from entering into, continuing in, or leaving the employment of any person, firm or corporation, shall be punished by imprisonment not more than two years, or by fine not exceeding five hundred dollars.

The statute of Massachusetts, being sections 2 and 78 of chapter 508 of the acts of 1894, reads as follows:

SECTION 2. No person shall, by intimidation or force, prevent or seek to prevent a person from entering into or continuing in the employment of any person or corporation.

SEC. 78. Any person violating any provision of this act where no special provision as to the penalty for such violation is made shall be punished by fine not exceeding one hundred dollars.

The statute of Michigan, to be found as section 11343 of the Compiled Laws of 1897, appears below:

SECTION 11343. If any person or persons shall, by threats, intimidations, or otherwise and without authority of law, interfere with, or in any way molest, or attempt to interfere with, or in any way molest or disturb, without such authority, any mechanic or other laborer, in the quiet and peaceable pursuit of his lawful avocation, such person or persons shall be deemed guilty of a misdemeanor, and on conviction by a court of competent jurisdiction, shall be severally punished by a fine of not less than ten dollars, nor more than one hundred dollars, or by imprisonment in the county jail where the offense shall have been committed, not less than one month nor more than one year, or by both fine and imprisonment, in the discretion of the court; but if such punishment be by fine, the offender shall be imprisoned in such jail until the same be paid, not exceeding ninety days.

In a case in Michigan, where the question of amending an injunction issued against some striking workmen to prevent them from doing certain acts in furtherance of a "boycott" against a firm of employers was under consideration, the supreme court of the State decided that the distribution of circulars containing the words "Boycott Jacob Beck and Sons," and the "picketing" of the employers' premises by stationing their men on the streets near said premises, following the employers' teamsters, intercepting the customers, and trying to keep them from purchasing, etc., to be intimidation under this law. The court said in part: "The right to trade and the personal liberty of the employer are not alone involved in this case; the right of the laborer to sell his labor where, to whom, and for what price he chooses is involved. The law does not permit either party to use force, violence, threats of force or violence, intimidation, or coercion. When these defendants went * * * distributing these circulars * * * they intended, in emphatic manner, to convey to the customers of complainants that they would be treated in like manner unless they ceased to trade with complainants. * * * It would be idle to argue that these circulars were not intended as a menace, intimidation, and coercion. They were so used and were a standing menace to every-

one who wished to work for, or trade with, complainants. To picket complainants' premises in order to intercept their teamsters or persons going there to trade is unlawful. It itself is an act of intimidation, and an unwarrantable interference with the right of free trade."

In section 6790 of the General Statutes of 1894 the statute of Minnesota appears and is couched in language as follows:

SECTION 6790. A person who, with a view to compel another person to do or abstain from doing an act which such other person has a legal right to do or to abstain from doing, wrongfully and unlawfully

* * * * *

2. Deprives any such person of any tool, implement, or clothing, or hinders him in the use thereof; or,

3. Uses or attempts the intimidation of such person by threats or force;

Is guilty of a misdemeanor.

The statute of New York, being section 653 of the Penal Code, is in exactly the same words as the Minnesota statute, above, and will therefore not be given here. In a case heard in the court of general sessions of New York County in 1886, and which does not appear to have ever gone before a higher court, it was held that when certain parties had conspired, etc., by force, threats, and intimidation to prevent and hinder a certain firm from exercising its lawful trade and calling, and in pursuance of said conspiracy had attempted and endeavored by threats, threatening notices, etc., to intimidate certain servants of the firm and to induce and constrain them against their own free will and good judgment to quit their said employment and to refuse to do and perform the work, labor, and duties thereof, and assaulted, beat, and wounded said servants with intent to intimidate, coerce, and constrain them; and by watching and besetting the shop, distributing handbills and printed circulars, etc., they attempted to intimidate persons who desired to trade in the shop and keep them from so doing, such acts constitute the crimes of conspiracy and coercion under sections 168 and 653 of the Penal Code.

In section 1 of chapter 70 of the acts of 1898 Mississippi enacted the following statute upon this subject:

SECTION 1. Any person or persons who shall, by placards or other writing, or verbally, attempt by threats, direct or implied, of injury to the person or property of another, to intimidate such other person into an abandonment or change of home or employment, shall, upon conviction, be fined not exceeding \$500, or imprisoned in the county jail not exceeding six months, or in the penitentiary not exceeding five years, as the court, in its discretion, may determine.

Missouri, by the following section of the Revised Statutes of 1889, expressed the judgment of her legislators in regard to this point as follows:

SECTION 3783. Every person who shall, by force, menace, or threats of violence to the person or property of another, compel or attempt to

compel any person to abandon any lawful occupation or employment for any length of time, or prevent or attempt to prevent any person from accepting or entering upon any lawful employment, shall, upon conviction, be punished by imprisonment in the county jail not less than six months, or by a fine of not less than one hundred dollars, or by both such fine and imprisonment. Every person who shall, by threats of violence to the person or property of another, compel or attempt to compel any person to abandon any lawful occupation or employment for any length of time, or prevent any person from accepting or entering upon any lawful employment, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine not less than fifty dollars, or imprisonment in the county jail not less than three months, or by both such fine and imprisonment.

In a decision rendered in 1895, in a case where application was made for the issuance of an injunction directed against the acts of certain striking employees, the supreme court of Missouri in laying down the law said: "They [the strikers] are free men and have a right to quit the employ of the plaintiff whenever they see fit to do so, and no one can prevent them; * * *. And they have a right to use fair persuasion to induce others to join them in their quitting. But when fair persuasion is exhausted, they have no right to resort to force or threats of violence. The same law which guarantees them in their right to quit the employment * * * at their own will and pleasure also guarantees the other employees the right to remain in the employment at their will and pleasure."

The New Hampshire statute, part of chapter 266 of the Public Statutes of 1891, reads as follows:

SECTION 12. If any person shall interfere in any way whatever to injure or damage another in his person or property, while engaged in his lawful business, trade, or occupation, or while on the way to or from the same, or shall endeavor to prevent any person from engaging in his lawful business, trade, or calling, he shall be fined not exceeding five hundred dollars, or be imprisoned not exceeding one year.

Two sections of the Revised Codes of North Dakota of 1895 contain the statute of that State, as follows:

SECTION 7660. Every person who, by any use of force, threats, or intimidation, prevents or endeavors to prevent any hired foreman, journeyman, apprentice, workman, laborer, servant, or other person employed by another from continuing or performing his work, or from accepting any new work or employment, or to induce such hired person to relinquish his work or employment, or to return any work he has in hand before it is finished, is guilty of a misdemeanor.

SEC. 7661. Every person who, by any use of force, threats, or intimidation, prevents or endeavors to prevent another from employing any person, or to compel another to employ any person, or to force or induce another to alter his mode of carrying on business, or to limit or increase the number of his hired foremen, journeymen, apprentices, workmen, laborers, servants, or other persons employed by him, or their rate of wages or time of service, is guilty of a misdemeanor.

Oklahoma, in two paragraphs of the Statutes of 1893, has embodied its statutory provisions upon the subject. They are as follows:

PARAGRAPH 2544. Every person who, by any use of force, threats, or intimidation, prevents or endeavors to prevent any hired foreman, journeyman, apprentice, workman, laborer, servant, or other person employed by another from continuing or performing his work, or from accepting any new work or employment, or induce such hired person to relinquish his work or employment, or to return any work he has in hand before it is finished, is guilty of a misdemeanor.

PAR. 2545. Every person who, by any use of force, threats, or intimidation, prevents or endeavors to prevent another from employing any person, or to compel another to employ any person, or to force or induce another to alter his mode of carrying on business, or to limit or increase the number of his hired foremen, journeymen, apprentices, workmen, laborers, servants, or other persons employed by him, or their rate of wages or time of service, is guilty of a misdemeanor.

Section 1893 of the Annotated Statutes of Oregon of 1892 is the statute passed by that State, and is in the following words:

SECTION 1893. If any person shall, by force, threats, or intimidation, prevent, or endeavor to prevent, any person employed by another from continuing or performing his work, or from accepting any new work or employment; or if any person shall circulate any false written or printed matter, or be concerned in the circulation of any such matter, to induce others not to buy from or sell to or have dealings with any person, for the purpose or with the intent to prevent such person from employing any person, or to force or compel him to employ or discharge from his employment anyone, or to alter his mode of carrying on his business, or to limit or increase the number of his employees or their rate of wages or time of service, such person shall be deemed guilty of a misdemeanor, and on conviction thereof shall be imprisoned in the county jail not more than six nor less than one month, or by fine of not less than ten nor more than two hundred dollars.-

In a case heard by the supreme court of Oregon and decided in 1894 it was held that the above section "does not make it unlawful for a trade union, by resolution or order of its executive committee, to require its members, under pain of suspension or expulsion from the union, to quit a person's employ because of his violation of a lawful rule of the union. A conspiracy to injure or destroy a person's business or property is wrongful per se, although not indictable under this statute."

In discussing the meaning of the word "intimidation" as affected by the Pennsylvania statutes appearing on page 4, the supreme court of that State in a decision rendered in 1897 said:

The strikers and their counsel seem to think that the former could do anything to attain their ends, short of actual physical violence. This is a most serious misconception. The "arguments" and "persuasion" and "appeals" of a hostile and demonstrative mob have a potency over men of ordinary nerve which far exceeds the limits of lawfulness. The display of force, though none is actually used, is intimidation, and as much unlawful as violence itself.

The Rhode Island law is contained in the following section of chapter 278 of the General Laws of 1896:

SECTION 8. Every person who, by himself or in concert with other persons, shall attempt by force, violence, threats, or intimidation of any kind to prevent, or who shall prevent any other person from entering upon and pursuing any employment, upon such terms and conditions as he may think proper, shall be deemed guilty of a misdemeanor and be fined not exceeding one hundred dollars or be imprisoned not exceeding ninety days.

The statute of South Dakota is contained in the following sections of the Compiled Laws of 1887:

SECTION 6924. Every person who, by any use of force, threats, or intimidation, prevents or endeavors to prevent any hired foreman, journeyman, apprentice, workman, laborer, servant, or other person employed by another from continuing or performing his work, or from accepting any new work or employment, or to induce such hired person to relinquish his work or employment, or to return any work he has in hand before it is finished, is guilty of a misdemeanor.

SEC. 6925. Every person who, by any use of force, threats, or intimidation, prevents or endeavors to prevent another from employing any person, or to compel another to employ any person, or to force or induce another to alter his mode of carrying on business, or to limit or increase the number of his hired foremen, journeymen, apprentices, workmen, laborers, servants or other persons employed by him, or their rate of wages or time of service, is guilty of a misdemeanor.

Texas included her statutes in chapters 18 and 92 of the acts of 1887, which appear in order below, the first being general in its application, and the second applying only in the case of intimidation of railroad employees:

SECTION 1. Any person who shall, by threatening words, or by acts of violence or intimidation, prevent or attempt to prevent another from engaging or remaining in or from performing the duties of any lawful employment shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than twenty-five nor more than five hundred dollars, or by confinement not less than one nor more than six months in the county jail.

SECTION 1. Any person or persons who shall, by force, threats, or intimidation of any kind whatever, against any railroad engineer or engineers, or any conductor, brakeman, or other officer or employee, employed or engaged in running any passenger train, freight train, or construction train running upon any railroad in this State, prevent the moving or running of said passenger, freight, or construction train shall be deemed guilty of an offense, and upon conviction thereof each and every person so offending shall be fined in a sum not less than one hundred dollars nor more than five hundred dollars, and also imprisoned in the county jail for any period of time not less than three months nor more than twelve months.

SEC. 2. Each day said train or trains mentioned in section one of this act are prevented from moving on their road as specified in section one of this act shall be deemed a separate offense, and shall be punished as prescribed in section one of this act.

Vermont's legislation appears in the two following sections of the Revised Laws of 1880:

SECTION 4226. A person who threatens violence or injury to another person with intent to prevent his employment in a mill, manufactory, shop, quarry, mine, or railroad, shall be imprisoned not more than three months or fined not more than one hundred dollars.

SEC. 4227. A person who, by threats or intimidation, or by force, alone or in combination with others, affrights, drives away, and prevents another person from accepting, undertaking, or prosecuting such employment with intent to prevent the prosecution of work in such mill, shop, manufactory, mine, quarry, or railroad, shall be imprisoned in the State prison not more than five years or fined not more than five hundred dollars.

The following, taken from the syllabus of a case decided in 1884, shows the holding of the supreme court of Vermont in a conspiracy case coming partly under the above statute:

The labor and skill of the workman, the plant of the manufacturer, and the equipment of the farmer are in equal sense property. Every man has the right to employ his talents, industry, and capital as he pleases, free from the dictation of others; and if two or more persons combine to coerce his choice in this behalf it is a criminal conspiracy, whether the means employed are actual violence or a species of intimidation that works upon the mind. A count is sufficient which charges that the respondents unlawfully combined, conspired, and agreed together to prevent and hinder by violence, threats, and intimidation the Ryegate Granite Works from retaining and taking into its employ certain workmen. A count is sufficient which charges that the respondents, with malicious intent to control and injure said company, unlawfully conspired to terrify, intimidate, and drive away by threats its workmen. A count is sufficient which merely charges a conspiracy to do an unlawful act and a *fortiori* one that charges a conspiracy to do an unlawful act by unlawful means; thus these sections prescribe the punishment for using threats or intimidation to prevent a person accepting or continuing an employment in a mill, etc. The count charged that the respondents conspired with intent to prevent a prosecution of the business of said granite works and threatened its workmen, that they were "scab shops," that the employees were "scabs," that their names would be published in the "scab" list in the Granite Cutters' Journal, that they would be shunned and disgraced in the craft, etc., and that thereby they were frightened and driven away: *Held*, That said count charged a conspiracy to do an act unlawful at common law, by means unlawful under these sections, and that it sufficiently sets out an offense under these sections. The "boycott" is not the remedy to adjust the differences between capital and labor.

The State of Wisconsin has, in a section of the Annotated Statutes of 1889, enacted the following:

SECTION 4466c. Any person who by threats, intimidation, force, or coercion of any kind shall hinder or prevent any other person from engaging in or continuing in any lawful work or employment, either for himself or as a wage worker, or who shall attempt to so hinder or

prevent, shall be punished by fine not exceeding one hundred dollars or by imprisonment in the county jail not more than six months, or by both fine and imprisonment, in the discretion of the court.

The circuit court of the United States for the eastern district of Wisconsin has decided that the above section is declaratory of the common law, and that, in connection with sections 4466a and 4466b (see page 16), it wholly condemns all conspiracies to injure or oppress, or to interfere with the rights of others. In a case heard in the supreme court of Wisconsin and decided in October, 1898, it was claimed that the complaint in a criminal prosecution under the above section failed to state an offense under the same. The court decided that such an offense was stated, and used the following language:

Nevertheless, we are constrained to hold that the complaint is sufficient. It alleges, in effect, that at the time mentioned the plaintiff in error, at the city of Waukesha, in the municipal district, being then and there the business agent of the Building Trades Council of Milwaukee, a labor organization commonly called a "union," and acting as the agent of such trades council, for the purpose of preventing E. J. Affolter, John Kleigel, and Ed. Welsh, and divers other persons, then and there being nonunion men and not connected with the Building Trades Council or any other labor organization, from continuing in the lawful employment in which they were then and there engaged, so that their places be taken and the work performed by the so-called "union men," did then and there, by threats, intimidation, force, and coercion, willfully attempt to hinder and prevent said Affolter, Kleigel, and Welsh, and divers other persons, from engaging in and continuing in their lawful work and employment, to wit, working as carpenters for the firm of George Mindemand & Co. in and upon the erection and construction of a certain building described, in Waukesha; that the attempt to so hinder and prevent Affolter, Kleigel, and Welsh from so engaging in and continuing in their lawful work and employment by threats, intimidation, force, and coercion consisted in this, to wit: "That said Otto Fischer did then and there, in the presence of the said E. J. Affolter, John Kleigel, and Ed. Welsh, to, of, and concerning them, say: 'You (meaning the aforesaid E. J. Affolter, John Kleigel, and Ed. Welsh) can not build this building (meaning the building described as aforesaid). I will fight it if it takes all summer; and if your city will not protect us we will get the militia'—contrary to the statute in such case made and provided, and against the peace and dignity of the State of Wisconsin,"—and prays that the said Otto Fischer may be arrested and dealt with according to law. This language seems to be sufficient to authorize a finding that the accused did, "by threats, intimidation, force, or coercion," attempt to hinder or prevent the persons named and others from engaging or continuing in the lawful work or employment mentioned.

ILLEGAL ACTS OF STRIKERS.

During the progress of strikes, especially those of railroad employees, it is usual for many acts to be committed, either by the strikers or their sympathizers, with a view of preventing the employers

from using their property and conducting business. These acts may be violent, as the destruction or injuring of property, cars, buildings, locomotives, etc., or they may consist in simply abandoning a locomotive or a train without warning, and acts of a similar nature. Such acts, if they accomplish the purpose of the strikers of obstructing the conduct of business, tend to prevent the employment of workmen by the employers. A number of the States have passed statutes intended to prevent such practices and providing penalties for the commission of such unlawful acts. These statutes vary greatly in their terms, some of them containing in their bodies evidence that their provisions were directed primarily against offenses growing out of strikes, while others were directed primarily against offenses committed for other reasons, as those prompted by viciousness or by a design to aid in the robbing of trains, etc. It is often difficult to make a separation of such laws with certainty, and their language is such that, whatever the reasons for their enactment may have been, they could all undoubtedly be used in the punishment of those attempting to obstruct the conduct of a business by the use of certain illegal means, whatever their object in so doing might be. Such statutes have been passed by the legislatures of the following States and Territories: Arizona, Arkansas, Connecticut, Delaware, Idaho, Illinois, Indiana, Kansas, Kentucky, Maine, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Virginia, Washington, West Virginia, and Wisconsin. Many of these statutes are long, and it would be impracticable to attempt to reproduce them all in an article of this kind. An attempt will therefore be made to state the main features of their provisions, giving from time to time a few of the laws themselves as samples of the different kinds.

It may be stated, as true in general of them all, that they enumerate and forbid the commission of certain deeds and provide penalties for the violation of their provisions. Most of said statutes apply in the case of railroads, steam or street, one or both, but usually steam railroads only. As a sort of a summary of the prohibited acts usually mentioned in such statutes, though not containing them all, the statute of Arizona, part of the Penal Code, is given below:

SECTION 915 (as amended by act No. 63, acts of 1893). Every person who shall willfully or intentionally, without any legal excuse or justification therefor, either—

1. Remove, displace, destroy, or injure in any way any part of any railroad, whether for steam or horse cars, electric cars or cable cars, or any track, roadbed, bridge, culvert, car or locomotive engine, depot, water tank, coal bin, turntable, roundhouse, machine shops or machinery, section house, telegraph wires or lines, telegraph poles, batteries or office fixtures for operating telegraph wires or lines, or

any other property, real or personal, used in the operation of any railroad or switch, side track, viaduct, or embankment, or

2. Place any obstruction upon the rails, track, or roadbed of any railroad, switch, branch, side track, or turn-out, or

3. Who shall do any act with the intent or for the purpose of derailing any car, train, or trains of cars, locomotive engine, or of obstructing the running or operation of any car, train, or trains of cars, or locomotive engines, or who shall in anywise attempt to prevent any car, train, or trains of cars, or locomotive engine from being run or operated, or

4. Who shall, without legal excuse or justification, prevent or in anywise attempt to prevent any telegraph despatches or orders for the movement or operation of railroad trains or cars or locomotive engines from being sent or delivered or received shall be punished as follows:

By imprisonment in a Territorial prison for a period not exceeding five years or in a county jail not less than six months, and in addition thereto the court or judge may, in its or his discretion, impose a fine upon such person or persons, together with such imprisonment, in any sum not exceeding one thousand dollars.

The abandonment of a locomotive, train of cars, etc., by employees is frequently forbidden, under certain circumstances. The following section of the General Statutes of Connecticut of 1888 is an example of it:

SECTION 1517 (as amended by chapter 87, acts of 1895). Every person who shall unlawfully, maliciously, and in violation of his duty or contract, unnecessarily stop, delay, or abandon any locomotive, car, or train of cars, or street-railway car, or shall maliciously injure, hinder, or obstruct the use of any locomotive, car, or railroad, or street-railway car, or street railway, shall be fined not more than one hundred dollars or imprisoned not more than six months.

The statutes of Arkansas (secs. 1858 and 1859, Digest of 1894), Idaho (act approved February 27, 1893, page 68, acts of 1893), Indiana (secs. 2034 to 2043, Annotated Statutes of 1894), Minnesota (secs. 6772, 6855, 6885, and 6891, General Statutes of 1894), Montana (sec. 1030, Penal Code), Nebraska (secs. 6753 to 6757, Compiled Statutes of 1895), Nevada (chap. 67, acts of 1891), New Hampshire (secs. 1 to 6 of chap. 266, Public Statutes of 1891), New Mexico (chap. 16, acts of 1897), New York (sec. 30 of chap. 4, acts of 1891), North Dakota (sec. 7547, Revised Codes of 1895), Oregon (act approved February 21, 1893, page 85, acts of 1893), Rhode Island (secs. 45, 65, and 66 of chap. 279, General Laws of 1896), South Carolina (secs. 1733 to 1735, Civil Statute Laws, and 123, 124, 178 to 182, Criminal Statute Laws, Revised Statutes of 1893, and act No. 482, acts of 1898), South Dakota (secs. 6873 and 6874, Compiled Laws of 1887), Virginia (sec. 3725, Code of 1887), Washington (sec. 2, Penal Code, and chap. 52, acts of 1895), West Virginia (secs. 26, 26a, and 31 of chap. 145, Code of 1891), and Wisconsin (sec. 4466d, Annotated Statutes of 1889) are all of them similar in spirit to the statute of Arizona, reproduced above, although

varying much therefrom in language and particular provisions. Many of them, as has been stated before, are undoubtedly designed to prevent attempts at train robbery, while two of them—those of Indiana and South Carolina—contain provisions against injuring the property of companies, etc., other than railroad, such as steamboat, telegraph, telephone, electric light, etc.

Those laws which by their very terms are intended to apply to offenses growing out of strikes refer, with but one exception, to strikes on railroads only. Eight States—Delaware, Illinois, Kansas, Kentucky, Maine, Mississippi, New Jersey, and Pennsylvania—have such laws on their statute books, and that of Delaware, to be found on page 928 of the Revised Code, is reproduced below:

SECTION 1. If any locomotive engineer, upon any railroad within this State, who shall, at the time, be engaged in any strike, or with a view to incite others to such strike, or in furtherance of any combination or preconcerted arrangement with any other person or persons to bring about or produce such strike, shall abandon the locomotive engine in his charge, when attached either to a passenger or freight train, at any place other than the schedule or otherwise appointed destination of such train, or shall refuse or neglect to proceed with said train to the place of destination, as aforesaid, every such person so offending shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof by indictment, be fined not less than one hundred nor more than five hundred dollars and may be imprisoned for a term not exceeding six months, at the discretion of the court.

SEC. 2. If any locomotive engineer, or railroad employee, within this State, for the purpose of furthering the object of, or lending aid to, any strike or strikes organized or attempted to be maintained on any other railroad, either within or without this State, shall refuse or neglect, in the course of his employment, to aid in the movement over and upon the tracks of the company employing him of the cars of such other railroad company, or receive therefrom in course of transit where strikes are, either then, or may have been organized or attempted to be maintained, as aforesaid, every person so offending shall be deemed guilty of a misdemeanor, and upon conviction thereof by indictment shall be fined not less than one hundred nor more than five hundred dollars and may be imprisoned for a term not exceeding six months, at the discretion of the court.

SEC. 3. If any person in aid or furtherance of the objects of any strike upon any railroad within this State shall interfere with, molest, or obstruct any railroad employee engaged in the discharge and performance of his duty as such, every person so offending shall be deemed guilty of a misdemeanor, and upon conviction thereof by indictment shall be fined not less than one hundred nor more than five hundred dollars and may be imprisoned for a term not exceeding six months, at the discretion of the court.

SEC. 4. If any person or persons, in aid or furtherance of the objects of any strike, shall obstruct any railroad track within this State, or shall injure or destroy the rolling stock or any other property of any railroad company, or shall take possession of or remove any such property, or shall prevent, or attempt to prevent, the use thereof by such railroad company or its employees, or shall, by offer of recompense,

induce any employees of any railroad company within this State to leave the service of such company, every such person so offending shall be deemed guilty of a misdemeanor, and upon conviction thereof by indictment shall be fined not less than five hundred nor more than one thousand dollars and may be imprisoned not less than six months nor more than one year, at the discretion of the court.

SEC. 5. If any conductor, baggage master, brakeman, or other train man, employed on either a freight or passenger train, on any railroad within this State, shall abandon the train to which he is so attached, or with which he is connected in furtherance of any strike, or with a view of inciting others to such strike, or in aid of any others who may be engaged in such strike, at any place other than the schedule or otherwise appointed destination of such train, or shall refuse or neglect to proceed with such train to its place of destination, every such person so offending shall be deemed guilty of a misdemeanor, and upon conviction thereof by indictment shall be fined not less than one hundred nor more than five hundred dollars and may be imprisoned for a term not exceeding six months, at the discretion of the court.

The statute of Illinois, being four sections of chapter 114 and one section of chapter 38 of the Annotated Statutes of 1896, reads as follows:

SECTION 128. If any locomotive engineer, in furtherance of any combination or agreement, shall willfully and maliciously abandon his locomotive upon any railroad at any other point than the regular schedule destination of such locomotive, he shall be fined not less than twenty dollars, nor more than one hundred dollars, and confined in the county jail not less than twenty days, nor more than ninety days.

SEC. 129. If any person or persons shall willfully and maliciously, by any act or by means of intimidation, impede or obstruct, except by due process of law, the regular operation and conduct of the business of any railroad company or other corporation, firm, or individual in this State, or of the regular running of any locomotive engine, freight or passenger train, of any such company, or the labor and business of any such corporation, firm, or individual, he or they shall, on conviction thereof, be punished by a fine of not less than twenty dollars (\$20), nor more than two hundred dollars (\$200), and confined in the county jail not less than twenty, nor more than ninety days.

SEC. 130. If two or more persons shall willfully and maliciously combine or conspire together to obstruct or impede by any act, or by means of intimidation, the regular operation and conduct of the business of any railroad company or any other corporation, firm, or individual in this State, or to impede, hinder, or obstruct, except by due process of law, the regular running of any locomotive engine, freight or passenger train, on any railroad, or the labor or business of any such corporation, firm, or individual, such persons shall, on conviction thereof, be punished by fine not less than twenty dollars (\$20), nor more than two hundred dollars (\$200), and confined in the county jail not less than twenty days, nor more than ninety days.

SEC. 131. This act shall not be construed to apply to cases of persons voluntarily quitting the employment of any railroad company or such other corporation, firm, or individual, whether by concert of action or otherwise, except as is provided in section one (1) of this act [sec. 128].

SECTION 385. Any person or persons who shall remove, take, steal, change, add to, take from, or in any manner interfere with any journal bearings or brasses, or any of the parts or attachments of any locomotive, tender, or cars, or any fixture or attachment belonging to, connected with, or used in operating any locomotive, tender, or car owned, leased, or used by any railroad or transportation company in this State, shall be subject to punishment by imprisonment in the penitentiary not less than one nor more than five years, in the discretion of the court or jury before whom the cause is tried: *Provided*, That upon a plea of guilty being entered, the court may fix the penalty prescribed herein: *Provided further*, That if the removal of such journal bearings or brasses, fixtures, or attachments as aforesaid, shall be the cause of wrecking any train, locomotive, or other car in this State whereby the life or lives of any person or persons shall be lost as a result of the felonious or malicious stealing, interfering with, or removal of the fixtures aforesaid, the person or persons found guilty thereof shall be liable for murder as in other cases.

The Kansas statute is a literal copy of sections 128 to 131, above.

The Kentucky statute is comprised in the following sections of the Statutes of 1894:

SECTION 802. It shall be unlawful for any person or persons to prevent, hinder, or delay, or to attempt to prevent, hinder, or delay, by violence, the transportation of freight or passengers in this State by any individual, firm, company, corporation, or association doing business in this State, or to interfere with, by violence, any person or agency engaged in the conduct of commerce and traffic in this State, in such manner as to obstruct or impede the movement and conduct of such commerce or traffic; but nothing herein shall be construed to prevent any person, or class of persons, from quitting their employment at any time they see proper.

SEC. 803. And it shall be unlawful for any person or persons to prevent or hinder, or attempt to prevent or hinder, by coercion, intimidation, or any trespass or violent interference therewith, the free and lawful use of his or its property by any individual, firm, company, corporation, or association engaged in the business of transporting freight and passengers, and in the conduct of commerce and traffic in this State, or the free and lawful use of said property by any agent or employee of the owner thereof.

SEC. 804. Whoever shall violate the provisions of either of the two preceding sections shall be deemed guilty of a misdemeanor, and, upon conviction by any court of competent jurisdiction, shall be punished for each offense by a fine of not less than twenty-five, nor more than two hundred dollars, or by imprisonment in the county jail of the county wherein the offense is committed not less than ten days, nor more than six months, or shall be both so fined and imprisoned, in the discretion of the jury.

SEC. 807. Any person who shall willfully and maliciously tear up, displace, break, or disturb any rail or other fixture attached to the track or switch of any railroad in operation, or break any bridge or viaduct of such road, or who shall place any obstruction on the track or switch of such road, or do any act whereby any engine or car might be upset, arrested, or thrown from the track of such road or switch, or any branch

or turn-out, shall be confined in the penitentiary not less than one, nor more than five years.

SEC. 808. Any person who shall, by any of the acts mentioned in the next preceding section, cause the life of any person to be put in immediate peril, or cause any locomotive or car to be actually thrown from the track, shall be confined in the penitentiary not less than two, nor more than ten years.

The statute of the State of Maine, being four sections of chapter 123, of the Revised Statutes of 1883, is as follows:

SECTION 6. Any employee of a railroad corporation who, in pursuance of an agreement or combination by two or more persons to do, or procure to be done, any act in contemplation or furtherance of a dispute between such corporation and its employees, unlawfully, or in violation of his duty or contract, stops or unnecessarily delays or abandons, or in any way injures a locomotive or any car or train of cars on the railway track of such corporation, or in any way hinders or obstructs the use of any locomotive, car, or train of cars on the railroad of such corporation, shall be punished by fine not exceeding five hundred dollars, or imprisonment in the State prison or in jail not exceeding one year.

SEC. 7. Whoever, by any unlawful act, or by any willful omission or neglect, obstructs or causes to be obstructed an engine or carriage on any railroad or railway, or aids or assists therein; or whoever, having charge of any locomotive or carriage while upon or in use on any railway of any railroad corporation, willfully stops, leaves, or abandons the same, or renders, or aids, or assists in rendering the same unfit for or incapable of immediate use, with intent thereby to hinder, delay, or in any manner to obstruct or injure the management and operation of any railroad or railway, or the business of any corporation operating or owning the same, or of any other corporation or person, and whoever aids or assists therein, shall be punished by fine not exceeding one thousand dollars, or imprisonment in the State prison or in jail not exceeding two years.

SEC. 8. Whoever, having any management of, or control, either alone or with others, over any railroad locomotive, car, or train, while it is used for the carriage of persons or property, or is at any time guilty of gross carelessness or neglect on, or in relation to, the management or control thereof; or maliciously stops or delays the same, in violation of the rules and regulations then in force for the operation thereof; or abstracts therefrom the tools or appliances pertaining thereto, with intent thereby maliciously to delay the same, shall be punished by a fine not exceeding one thousand dollars, or imprisonment in the State prison or in jail not exceeding three years.

SEC. 10. Any person in the employment of a railroad corporation who, in furtherance of the interests of either party to a dispute between another railroad corporation and its employees, refuses to aid in moving the cars of such other corporation, or trains in whole or in part made up of the cars of such other corporation, over the tracks of the corporation employing him, or refuses to aid in loading or discharging such cars, in violation of his duty as such employee, shall be punished by fine not exceeding five hundred dollars, or imprisonment in the State prison or in jail not exceeding one year.

The following is the statute of Mississippi as given in the Annotated Code of 1892:

SECTION 1265. If any person shall wantonly or negligently obstruct or injure any railroad, on conviction he shall be fined not more than two thousand dollars, or imprisoned not longer than twelve months in the county jail, or both.

SEC. 1266. If any person shall wantonly or maliciously injure, or place any impediment or obstruction on any railroad, or do any other act by means of which any car or vehicle might be caused to diverge, or be derailed, or thrown from the track, such person on conviction shall be imprisoned in the penitentiary not longer than ten years; and the penalty provided in this section shall apply to any engineer, conductor, switchman, brakeman, train dispatcher, or telegraph operator who shall willfully or negligently cause the derailment or collision of a passenger train.

SEC. 1270. If two or more persons shall willfully and maliciously combine or conspire together to obstruct or impede by any act, or by means of intimidation, the regular operation and conduct of the business of any railroad company, or to impede, hinder, or obstruct, except by due process of law, the regular running of any locomotive engine, freight or passenger train on any railroad, or the labor and business of such railroad company, such persons, and each of them, shall on conviction be punished by a fine not exceeding five hundred dollars, or imprisonment in the county jail not exceeding six months, or both; but this section shall not apply to persons who merely quit the employment of a railroad company, whether by concert of action or otherwise.

SEC. 1271. If any person, not being employed on any railroad, shall willfully and maliciously uncouple or detach the locomotive or tender or any of the cars of any railroad train, or shall in any way aid, abet, or procure the doing of the same, such person shall be punished by a fine of not more than two hundred dollars, or imprisonment in the county jail not exceeding six months, or both.

SEC. 1273. If any person shall unlawfully seize upon any locomotive and run it away, or shall aid, abet, or procure the doing of the same, he shall upon conviction be fined not exceeding two hundred dollars, or imprisoned in the county jail not exceeding six months, or both.

SEC. 1274. It shall be unlawful for any locomotive or train of cars to be stopped or left standing on any railroad crossing, unless done under regulations adopted by those having the right to control such matter; and any person violating this section shall on conviction be fined not less than one hundred dollars nor more than one thousand dollars, or be imprisoned in the county jail for one year, or both; and if in consequence of such violation any person shall be killed or injured, the guilty party shall be imprisoned in the penitentiary not exceeding fifteen years.

SEC. 1279. If any brakeman, switchman, or other person in charge of any switch shall willfully or carelessly leave the same open or improperly placed, whereby any person shall be killed or injured, he shall on conviction be imprisoned in the penitentiary not more than fifteen years.

SEC. 1280. If any person, without authority and in the absence of

apparent danger warranting such act, shall, out of a spirit of mischief, or with any purpose other than to prevent or give information of an accident, make, or cause to be made, any sign or signal to persons in charge of any locomotive or railroad train or cars, or to any of such persons, or in the sight of any of them, with intent to cause the stopping or starting of such locomotive, train, or cars, or if any person unlawfully interfere with the management or running of such locomotive, train, or cars on any railroad, the person so offending shall be guilty of a misdemeanor, and upon conviction shall be fined not less than ten dollars nor more than two hundred dollars, or shall be imprisoned in the county jail not exceeding three months.

The statute of the State of New Jersey is found on page 2696 of the General Statutes of 1895, and reads as follows:

Whereas, strikes by locomotive engineers and other railroad employees, and the abandonment by them of their engines and trains at points other than their schedule destination, endangers the safety of passengers and subjects shippers of freights to great inconvenience, delay, and loss; therefore,

SEC. 245. If any locomotive engineer or other railroad employee upon any railroad within this State, engaged in any strike, or with a view to incite others to such strike, or in furtherance of any combination or preconcerted arrangement with any other person to bring about a strike, shall abandon the locomotive engine in his charge, when attached either to a passenger or freight train, at any place other than the schedule or otherwise appointed destination of such train, or shall refuse or neglect to continue to discharge his duty, or to proceed with said train to the place of destination as aforesaid, he shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than one hundred nor more than five hundred dollars, and may be imprisoned for a term not exceeding six months, at the discretion of the court.

SEC. 246. If any locomotive engineer or other railroad employee within this State, for the purpose of furthering the object or of lending aid to any strike or strikes organized or attempted to be maintained on any other railroad, either within or without this State, shall refuse or neglect, in the course of his employment, to aid in the movement over and upon the tracks of the company employing him of the cars of such other railroad company, received therefrom in the course of transit, he shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than one hundred nor more than five hundred dollars, and may be imprisoned for a term not exceeding six months, at the discretion of the court.

SEC. 247. If any person, in aid or furtherance of the objects of any strike upon any railroad, shall interfere with, molest, or obstruct any locomotive engineer or other railroad employee engaged in the discharge and performance of his duty as such, every person so offending shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than one hundred nor more than five hundred dollars, and may be imprisoned for a term not exceeding six months, at the discretion of the court.

SEC. 248. If any person or persons, in aid or furtherance of the objects of any strike, shall obstruct any railroad track within this State, or shall injure or destroy the rolling stock or any other prop-

erty of any railroad company, or shall take possession of or remove any such property, or shall prevent or attempt to prevent the use thereof by such railroad company or its employees, or shall, by offer of recompense, induce any employee of any railroad company within this State to leave the service of such company while in transit, every such person offending shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding five hundred dollars, and may be imprisoned not more than one year, at the discretion of the court.

The State of Pennsylvania has legislated upon this subject in a statute appearing on page 533 of the Digest of 1895, being as follows:

SECTION 357. If any locomotive engineer, or other railroad employee, upon any railroad within this State, engaged in any strike, or with a view to incite others to such strike, or in furtherance of any combination or preconcerted arrangement with any other person to bring about a strike, shall abandon the locomotive engine in his charge, when attached either to a passenger or freight train, at any place other than the schedule or otherwise appointed destination of such train, or shall refuse or neglect to continue to discharge his duty, or to proceed with said train to the place of destination as aforesaid, he shall be deemed guilty of a misdemeanor; and upon conviction thereof shall be fined not less than one hundred dollars nor more than five hundred dollars, and may be imprisoned for a term not exceeding six months, at the discretion of the court.

SEC. 358. If any locomotive engineer, or other railroad employee, within this State, for the purpose of furthering the object of, or lending aid to any strike or strikes, organized or attempted to be maintained on any other railroad, either within or without this State, shall refuse or neglect, in the course of his employment, to aid in the movement over and upon the tracks of the company employing him, [or] the cars of such other railroad company, received therefrom in the course of transit, he shall be deemed guilty of a misdemeanor; and upon conviction thereof shall be fined not less than one hundred dollars nor more than five hundred dollars, and may be imprisoned for a term not exceeding six months, at the discretion of the court.

SEC. 359. If any person, in aid or furtherance of the objects of any strike upon any railroad, shall interfere with, molest or obstruct any locomotive engineer, or other railroad employee, engaged in the discharge and performance of his duty as such, every person so offending shall be deemed guilty of a misdemeanor; and upon conviction thereof shall be fined not less than one hundred nor more than two hundred dollars, and may be imprisoned for a term not exceeding six months, at the discretion of the court.

SEC. 360. If any person or persons, in aid or furtherance of the objects of any strike, shall obstruct any railroad track within this State, or shall injure or destroy the rolling stock or any other property of any railroad company, or shall take possession of or remove any such property, or shall prevent or attempt to prevent the use thereof by such railroad company or its employees, every such person so offending shall be deemed guilty of a misdemeanor; and upon conviction thereof shall be fined not less than five hundred dollars nor more than one thousand dollars, and may be imprisoned not less than six months nor more than one year, at the discretion of the court.

PROTECTION OF EMPLOYEES AS MEMBERS OF LABOR ORGANIZATIONS.

A matter which is intimately connected with the subject of strikes, etc., is the effort made by employers to have no relations with labor organizations in the conduct of their business and their endeavor, in this connection, not to employ workmen who belong to such associations. With this end in view in such cases it has been common for employers to require, as a condition of employment, from those desiring the same, agreements not to become or continue members of any labor organizations.

A number of States, of which the following is a list, have enacted statutes making this practice on the part of employers unlawful: California, Colorado, Connecticut, Idaho, Illinois, Indiana, Kansas, Massachusetts, Minnesota, Missouri, New Jersey, New York, Ohio, Pennsylvania, and Wisconsin.

The statute of California, to be found as section 679 of the Penal Code, is in the following language:

SECTION 679 (added by chapter 149, acts of 1893). Any person or corporation within this State, or agent or officer on behalf of such person or corporation, who shall hereafter coerce or compel any person or persons to enter into an agreement, either written or verbal, not to join or become a member of any labor organization, as a condition of such person or persons securing employment or continuing in the employment of any such person or corporation, shall be guilty of a misdemeanor.

Colorado's enactments are embodied in chapter 50, acts of 1897, and read as follows:

SECTION 1. It shall be unlawful for any individual, company or corporation or any member of any firm, or agent, officer or employee of any company or corporation, to prevent employees from forming, joining or belonging to any lawful labor organization, union, society, or political party, or to coerce or attempt to coerce employees by discharging or threatening to discharge them from their employ or the employ of any firm, company or corporation, because of their connection with such lawful labor organization, union, society, or political party.

SEC. 2. Any person or any member of any firm, or agent, officer or employee of any such company or corporation, violating the provisions of section one of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in any sum not less than one hundred dollars nor more than five hundred dollars or imprisoned for a period not less than six months nor more than one year, or both, in the discretion of the court.

On page 187 of the acts of 1893, Missouri's provisions appear in the following statute:

SECTION 1. No employer, superintendent, foreman, or other person exercising superintendence or authority over any mechanic, miner, engineer, fireman, switchman, baggageman, brakeman, conductor, tel-

graph operator, laborer, or other workingman, shall enter into any contract or agreement with any such employee, requiring said employee to withdraw from any trade union, labor union, or other lawful organization of which said employee may be a member, or requiring said employee to refrain from joining any trade union, labor union, or other lawful organization, or requiring any such employee to abstain from attending any meeting or assemblage of people called or held for lawful purposes, or shall by any means attempt to compel or coerce any employee into withdrawal from any lawful organization or society.

SEC. 2. Corporations, and the managers, superintendents, overseers, master mechanics, foremen, officers and directors, and others exercising authority for and on behalf of corporations doing business in this State, shall be subject to the provisions of this act, and upon conviction of the violations of any of its provisions, to the punishment prescribed by it.

SEC. 3. Any person or corporation violating any of the provisions of this act shall, upon conviction, be punished by a fine of not less than fifty dollars nor more than one thousand dollars, or imprisonment in the county jail not exceeding six months, or by both such fine and imprisonment.

New York's statute, part of the Penal Code, is as follows:

SECTION 171a (added by chapter 688, acts of 1887). Any person or persons, employer or employers of labor, and any person or persons of any corporation or corporations on behalf of such corporation or corporations, who shall hereafter coerce or compel any person or persons, employee or employees, laborer or mechanic, to enter into an agreement, either written or verbal, from such person, persons, employee, laborer, or mechanic, not to join or become a member of any labor organization, as a condition of such person or persons securing employment, or continuing in the employment of any such person or persons, employer or employers, corporation or corporations, shall be deemed guilty of a misdemeanor. The penalty for such misdemeanor shall be imprisonment in a penal institution for not more than six months, or by a fine of not more than two hundred dollars, or by both such fine and imprisonment.

Ohio's enactments, on page 269 of the acts of 1892, read as follows:

SECTION 1. It shall be unlawful for any individual or member of any firm, or agent, officer, or employee of any company or corporation, to prevent employees from forming, joining, and belonging to any lawful labor organization, and any such individual, member, agent, officer or employee that coerces or attempts to coerce employees, by discharging or threatening to discharge from their employ or the employ of any firm, company, or corporation, because of their connection with such lawful labor organization, shall be guilty of a misdemeanor, and upon conviction thereof in any court of competent jurisdiction shall be fined in any sum not exceeding one hundred dollars or imprisoned for not more than six months, or both, in the discretion of the court.

The above statutes are sufficient to show the varieties in form. Those of the other States are practically the same in their provisions as the above and are to be found as follows: Connecticut (chapter

170, acts of 1899), Idaho (page 221, acts of 1899), Illinois (section 302 of chapter 38, Annotated Statutes of 1896), Indiana (section 2302, Annotated Statutes of 1894), Kansas (chapter 120, acts of 1897), Massachusetts (sections 3 and 78 of chapter 508, acts of 1894), Minnesota (sections 1 and 2 of chapter 172, and section 3 of chapter 174, acts of 1895, on page 13, ante), New Jersey (chapter 212, acts of 1894), Pennsylvania (act No. 98, acts of 1897), and Wisconsin (section 4466b, clauses 4 and 5, Annotated Statutes of 1889, on page 16, ante, and chapter 332, acts of 1899).

In a case heard in 1895 the supreme court of Missouri decided that the Missouri statute, above, violates the fifth amendment and section 1 of the fourteenth amendment of the Constitution of the United States, and also section 30 of article 2 of the State constitution, which declare that no person shall be deprived of life, liberty, or property without due process of law, and it also decided that it was unconstitutional, as being special or class legislation.

In a case heard and decided by the supreme court of New York in 1893 the evidence showed that the Ale Brewers' Association of the city of Rochester, an employer of labor, had made an agreement with the local assembly of a labor organization that no brewery belonging to the association would employ a workman who was not a member of said labor organization. This case, on its face, was the converse of the prohibition in the New York statute; yet the court held that the means employed by the labor organization to accomplish its objects violated the spirit, if not the letter, of the statute, and conflicted with the principles of public policy, by making the refusal of a workman to join said organization a pretext for interfering with his personal liberty by depriving him of his right to labor.

The constitutionality of the Ohio act has been questioned in the courts, but was affirmed in a case heard in the court of common pleas.

A Federal statute upon this subject has recently been enacted by Congress and is contained in chapter 370 of the acts of 1897-98. The parts of the statute relating to this subject read as follows:

SECTION 1. The provisions of this act shall apply to any common carrier or carriers and their officers, agents, and employees, except masters of vessels and seamen, as defined in section forty-six hundred and twelve, Revised Statutes of the United States, engaged in the transportation of passengers or property wholly by railroad, or partly by railroad and partly by water, for a continuous carriage or shipment, from one State or Territory of the United States, or the District of Columbia, to any other State or Territory of the United States, or the District of Columbia, or from any place in the United States to an adjacent foreign country, or from any place in the United States through a foreign country to any other place in the United States. The term "railroad" as used in this act shall include all bridges and ferries used or operated in connection with any railroad, and also all the road in use by any corporation operating a railroad, whether owned or oper-

ated under a contract, agreement, or lease; and the term "transportation" shall include all instrumentalities of shipment or carriage. The term "employees" as used in this act shall include all persons actually engaged in any capacity in train operation or train service of any description, and notwithstanding that the cars upon or in which they are employed may be held and operated by the carrier under lease or other contract: *Provided, however,* That this act shall not be held to apply to employees of street railroads and shall apply only to employees engaged in railroad train service. In every such case the carrier shall be responsible for the acts and defaults of such employees in the same manner and to the same extent as if said cars were owned by it and said employees directly employed by it, and any provisions to the contrary of any such lease or other contract shall be binding only as between the parties thereto and shall not affect the obligations of said carrier either to the public or to the private parties concerned.

SEC. 10. Any employer subject to the provisions of this act and any officer, agent, or receiver of such employer who shall require any employee, or any person seeking employment, as a condition of such employment, to enter into an agreement, either written or verbal, not to become or remain a member of any labor corporation, association, or organization; or shall threaten any employee with loss of employment, or shall unjustly discriminate against any employee because of his membership in such a labor corporation, association, or organization; * * * is hereby declared to be guilty of a misdemeanor, and, upon conviction thereof in any court of the United States of competent jurisdiction in the district in which such offense was committed, shall be punished for each offense by a fine of not less than one hundred dollars and not more than one thousand dollars.

PROTECTION OF EMPLOYEES IN THEIR POLITICAL AND SOCIAL RIGHTS.

In order to prevent the discharge or the nonemployment of workmen on political grounds many States have enacted laws prohibiting employers from coercing employees by threats of loss of employment, etc., to vote or not to vote for particular candidates for office or particular measures, and from discharging employees on account of the way in which their votes have been cast. The States and Territories having existing legislation upon the above subject are Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee, Utah, West Virginia, Wisconsin, and Wyoming.

The statute of Arizona, part of act No. 20, acts of 1895, reads as follows:

SECTION 4. It shall be unlawful for any employer, either corporation, association, company, firm, or person, in paying its, their, or his employees the salary or wages due them, to inclose their pay in "pay envelopes" upon which there is written or printed any political mottoes, devices, or arguments containing threats, express or implied, intended

or calculated to influence the political opinion, views, or actions of such employees. Nor shall it be lawful for any employer, either corporation, association, company, firm, or person, within ninety days of any election provided by law, to put up or otherwise exhibit in its, their, or his factory, workshop, mine, mill, boarding house, office, or other establishment or place where its, their, or his employees may be working or be present in the course of such employment, any handbill, notice, or placard containing any threat, notice, or information that in case any particular ticket or candidate shall be elected, work in its, their, or his place or establishment will cease in whole or in part, or its, their, or his establishment be closed, or the wages of its, their, or his workmen be reduced, or other threats, express or implied, intended or calculated to influence the political opinions or actions of its, their, or his employees. Any person or persons, or corporation, violating any of the provisions of this section shall be deemed guilty of a misdemeanor, and any person, whether acting in his individual capacity or as an officer or agent of any corporation, so guilty of such misdemeanor shall be punished as hereinafter prescribed.

SEC. 5. It shall be unlawful for any corporation, or any officer or agent of any corporation, to influence or attempt to influence by force, violence, or restraint, or by inflicting or threatening to inflict any injury, damage, harm, or loss, or by discharging from employment or promoting in employment, or by intimidation or otherwise, in any manner whatever, to induce or compel any employee to vote or refrain from voting at any election provided by law, or to vote or refrain from voting for any particular person or persons at any such election. Any such corporation, or any officer or agent of such corporation, violating any of the provisions of this section shall be deemed guilty of a misdemeanor and be punished by a fine not exceeding five thousand dollars.

The statutes of California, Colorado, Montana, Nevada, New York, South Dakota, Tennessee, and Utah are either identical or nearly identical with the Arizona statute, above. They are: California (section 41 of chapter 16, acts of 1893), Colorado (sections 4 and 5 of act of March 7, 1891, page 167, acts of 1891), Montana (sections 108 and 109 of the Penal Code), Nevada (sections 36 and 37 of chapter 103, acts of 1895), New York (section 41f of the Penal Code enacted by chapter 693, acts of 1892), South Dakota (sections 5, 6, and 7 of chapter 58, acts of 1891), Tennessee (sections 4, 5, and 7 of chapter 14, acts of 1897), Utah (sections 7, 8, and 21 of subchapter 8 of chapter 50, acts of 1897).

The statute of Arkansas, being part of section 2656 of the Digest of 1894, is as follows:

SECTION 2656. * * * No person shall coerce, intimidate, or unduly influence any elector to vote for or against the nominee of any political party, or for or against any particular question or candidate, by any threat * * * of discharge from employment * * *. Any violation of this section shall be deemed a felony, and on conviction shall be punished by imprisonment in the penitentiary not less than one year nor more than three years.

The Connecticut statute, section 276 of the General Statutes of 1888, is as follows:

SECTION 276. Every person who shall, at or within sixty days prior to any [electors', town, or city] * * * meeting, attempt to influence the vote of any operative in his employ by threats of withholding employment from him, or by promises of employment, or who shall dismiss any operative from his employment on account of any vote he may have given at any such meeting, shall be fined not less than one hundred dollars nor more than five hundred dollars, or imprisoned not less than six months nor more than twelve months, or both.

The statutes of Delaware (sections 1 and 2 on page 148, Revised Code of 1893), Idaho (section 5 of act of February 25, 1891, page 50, acts of 1891), Indiana (section 2341 of the Annotated Statutes of 1894), Iowa (section 1123, Code of 1897), Kansas (section 24 of chapter 129, acts of 1897), Massachusetts (section 410 of chapter 548, acts of 1898), Michigan (section 11452, Compiled Laws of 1897), Minnesota (section 114, General Statutes of 1894), New Mexico (section 1636, Compiled Laws of 1897), Ohio (section 34 of act of April 18, 1892, page 452, acts of 1892), Pennsylvania (section 52 on page 480, Digest of 1895), Wisconsin (section 4548a, Annotated Statutes of 1889), and Wyoming (subsection 8 of section 174 of chapter 80, acts of 1890) are all practically the same as the statute of Arkansas, above, and mention only the "threat of discharge from employment," although their wording varies to some extent.

The statutes of Kentucky (section 1574, Statutes of 1894), Missouri (act of March 20, 1897, page 108, acts of 1897), New Jersey (section 206 of chapter 139, acts of 1898), North Carolina (section 41 of chapter 159, acts of 1895), South Carolina (section 241, Criminal Statute Laws), and West Virginia (section 7 of chapter 5, Code of 1891) are in effect the same as the statute of Connecticut, above, prohibiting or making unlawful not only the threat of dismissal, but also the dismissal, from employment.

The statute of the State of Louisiana being very differently worded from those of the other States, though probably much the same in its meaning, is to be found in section 902 of the Revised Laws of 1897 and reads as follows:

SECTION 902. Any planter, manager, overseer, or other employer of laborers in this State who shall, previous to the expiration of the term of service of any laborer in their employ or under their control, discharge from their employ any laborer or laborers on account of their political opinions, or who shall attempt to control the suffrages or votes of such laborers, by any contract or agreement whatever, entered into at any time with such laborers, shall pay a fine of not less than one hundred dollars nor more than five hundred dollars, to be recovered before any court of competent jurisdiction; and it shall be the duty of the district attorney for the judicial district, or the district attorney *pro tempore* of the parish in which such offender resides, to

institute such suit in the name of the parish of the offender's residence, and he shall be entitled to twenty-five per cent of the amount of all fines he may so recover as his fees in the case, and the balance shall be paid to the treasurer of the common-school fund of such parish, for the use of common schools in such parish; and upon due conviction for any such offense, such offender shall be imprisoned not exceeding one year.

Section 5507 of the Revised Statutes of the United States, a Federal statute, is in form much like some of those named above, but its provisions were enacted for the benefit only of those to whom the right of suffrage was guaranteed by the fifteenth amendment to the Constitution of the United States. Said amendment provides that the right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude. This amendment was designed to protect the negroes, formerly held in slavery, in the right of suffrage. The section referred to is as follows:

SECTION 5507. Every person who prevents, hinders, controls, or intimidates another from exercising, or in exercising the right of suffrage, to whom that right is guaranteed by the fifteenth amendment to the Constitution of the United States, by means of bribery or threats of depriving such person of employment or occupation, or of ejecting such person from a rented house, lands, or other property, or by threats of refusing to renew leases or contracts for labor, or by threats of violence to himself or family, shall be punished as provided in the preceding section.

The United States courts have decided that section 5507, above, is unconstitutional and void in that it attempts to punish individuals acting upon their own responsibility, and not acting as officers of the United States or of a State, or otherwise under pretended authority of law, as prohibited by the fifteenth amendment to the Constitution, whence the power of Congress to legislate upon the right of voting at State elections is solely derived.

Nearly in line with the above laws are the three following statutes, being sections 6962 to 6964 of the General Statutes of Minnesota of 1894, section 191 of the constitution of the State of Mississippi, and sections 1, 2, and 3 of chapter 9 of the acts of Wyoming of 1893:

SECTION 6962. Any person or partnership carrying on any trade or business in this State, and any corporation created under general or special laws, foreign or domestic, and exercising public or private franchises therein, are hereby forbidden from requiring or demanding of or from any servant or employee, on any condition whatever, the surrender in writing or by parol, or the abandonment or any agreement to abandon any lawful right or privilege of citizenship, public or private, political or social, moral or religious, and whoever violates the provisions of this act shall be deemed guilty of a misdemeanor, and upon a conviction shall be fined in a sum not exceeding one hundred dollars and shall stand committed to the common jail of the proper

county until such fine and costs of prosecution are paid, or in lieu of such fine the proper court may, in its discretion, sentence the convicted party to imprisonment in the county jail of the proper county for a term not exceeding ninety days.

SEC. 6963. The president, the vice-president, secretary, general superintendent, or other principal officer of any such partnership, association, or corporation as is named in section one of this act [6962], who may direct or may be a party to the violation of the provisions hereof, shall be taken and deemed as persons within the meaning thereof and shall be held liable in all courts and places for a violation by such partnership or corporation of the provisions thereof.

SEC. 6964. The county attorney of any county, or the proper prosecuting officer of any city or municipality in this State, is hereby authorized and directed to commence and to prosecute to termination before the proper court all violations of the provisions of this act whenever the same are brought to his notice.

SECTION 191. The legislature shall provide for the protection of the employees of all corporations doing business in this State from interference with their social, civil, or political rights by said corporations, their agents or employees.

SECTION 1. Any company, corporation, or individual who shall discharge, or cause to leave his, her, or their employ, temporarily or permanently, any person or persons because they have been nominated as a candidate for any position of honor, trust, or emolument, to be voted for at any election, held in pursuance of the laws of the State, shall be guilty of a misdemeanor, and shall be fined as provided in section 3 of this act.

SEC. 2. Any person, or agent, or officer of any company or corporation who shall cause, or attempt to cause, any person or persons nominated as candidates at any election to withdraw, or refrain from accepting such nomination by threatening loss of employment, business, or patronage, if they accept such candidacy, or shall make it a condition of employment, business, or patronage that such candidacy shall not be accepted, shall be guilty of a misdemeanor.

SEC. 3. Any person convicted under the provisions of this act shall be fined not less than one hundred dollars (\$100), nor more than five hundred dollars (\$500).

In act No. 21, acts of 1897, the State of Arkansas has enacted a law designed to prevent the making of false statements concerning the acts of railroad employees, which statements would probably be the cause of the loss of employment by such employees. The act reads as follows:

SECTION 1. Every person who shall, by any letter, mark, sign, or designation whatever, or by any verbal statement, falsely and without probable cause, report to any railroad or any other company or corporation, or to any individual or individuals, or to any of the officers, servants, agents, or employees of any such corporation, individual or individuals, that any conductor, brakeman, engineer, fireman, station agent, or other employees of any such railroad company, corporation, individual, or individuals, have received any money for the transportation of persons or property, or shall falsely and without probable cause report that any conductor, brakeman, engineer, fireman, station agent,

or other employees of any such railroad company, corporation, individual, or individuals, neglected, failed, or refused to collect any money for transportation of persons or property when it was their duty so to do, shall, on conviction, be adjudged guilty of a misdemeanor, and shall be fined in any sum not less than one hundred dollars (\$100), nor more than five hundred dollars (\$500).

PREVENTION OF WORKMEN FROM LEARNING TRADES, ETC.

The State of Georgia, in the following section of the Code of 1882, has enacted legislation aimed at the action of certain trade organizations in trying to limit the number of apprentices in their particular trades:

SECTION 4498. If any two or more persons shall associate themselves together in any society or organization whatever, with intent and for the purpose of preventing, in any manner whatever, any person or persons whomsoever from apprenticing himself or themselves to learn and practice any trade, craft, vocation, or calling whatsoever, or for the purpose of inducing, by persuasion, threats, fraud, or any other means, any apprentice or apprentices to any such trade, craft, vocation, or calling, to leave the employment of their employer or employers, or for the purpose, by any means whatever, of preventing or deterring any person or persons whomsoever, from learning and practicing any such trade, craft, vocation, or calling whatsoever, every such person so associating himself in such society or organization shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished as prescribed in section 4310 of this Code.

For section 4310, referred to in the above section, see page 28.

UNLAWFUL EMPLOYMENT OF SAILORS.

Louisiana and Texas have laws upon their statute books intended to prohibit the employment of sailors in work upon wharves, etc., thus preventing the ordinary wharf laborers, stevedores, etc., from being supplanted in their ordinary employment. Louisiana has two statutes, one applying to the whole State and the other to the city of New Orleans alone. They are act No. 73, acts of 1874, and act No. 76, acts of 1880, and read as follows:

SECTION 1. It shall be unlawful for any captain, master, or mate of any seagoing vessel, or for any stevedore, to employ sailors at work on the levees in the State of Louisiana not strictly belonging to and included in regular sailors' duty, as defined and prescribed by the maritime law governing the employment and duty of sailors.

SEC. 2. Any captain, master, or mate of any seagoing vessel who shall thus unlawfully employ any sailor within the jurisdiction of this State, or who shall by threats, punishment, or duress force any sailor thus to be employed, shall for each offense on conviction thereof be punished by a fine of not less than fifty dollars, or imprisonment for not less than one month, or both, at the discretion of the court.

SEC. 3. Any stevedore who shall work or connive at the working of any sailor thus employed shall be punished as provided for in section two of this act.

SEC. 4. All officers of the State or of the city of New Orleans are hereby prohibited from enforcing by capture, arrest, or otherwise any unlawful employment of sailors as above prohibited.

SEC. 5. No captain, master, or mate of any seagoing vessel who shall thus unlawfully employ any sailor shall have the benefit of any law of the State or ordinance of the city of New Orleans heretofore enacted or that shall be enacted for the protection or assistance of captains, masters, or mates in the enforcement of their contracts with sailors as against the sailor thus unlawfully employed.

SECTION 1. No sailor or portion of the crew of any foreign seagoing vessel shall engage in working on the wharves or levees of the city of New Orleans beyond the end of the vessel's tackle.

SEC. 2. Any officer, sailor, or member of the crew of a foreign seagoing vessel violating section one of this act shall be deemed guilty of a misdemeanor, and on conviction shall be imprisoned not more than ten days.

The statute of Texas, being chapter 54, acts of 1885, is very similar to the Louisiana statute, above, and is as follows:

SECTION 1. No sailor or portion of the crew of any foreign seagoing vessel shall engage in working on the wharves or levees of ports in the State of Texas beyond the end of the vessel's tackle.

SEC. 2. Any officer, sailor, or member of the crew of a foreign seagoing vessel violating section 1 of this act shall be deemed guilty of a misdemeanor, and on conviction shall be fined in a sum not less than ten dollars nor more than one hundred dollars, or be imprisoned in the county jail for not less than ten nor more than thirty days, or both in the discretion of the court or jury.

ARBITRATION OF LABOR DISPUTES.

The statutes previously considered have related almost entirely to acts either of employers or of the employees. There exist, however, certain statutes providing for action to be taken by others in the effort to prevent workmen from losing employment, either by their own act or by those of their employers. These statutes provide for the mediation of third parties between the employers and the employees when strikes or lockouts are threatened and for the submission of the questions in dispute to arbitration. In cases of disputes and differences arising between employers and employees, a knowledge of human nature warrants the belief that such differences would usually be more easily settled and a strike or lockout, causing loss of employment by the employees, be prevented, if the questions could be left to unprejudiced persons, to be settled by them according to the facts and strict justice; and even the good efforts only of third parties, exercised in cool blood and with freedom from bias, might often prevent much trouble and financial loss.

Compulsory arbitration seems impracticable in this country for reasons not necessary to mention here, although one State has recently passed a statute practically providing for it in the case of strikes on

railroads, but it is practical for the law to step in and provide the machinery for voluntary arbitration when the parties are both willing to agree to such a method of settlement, and the law can also provide for attempts at mediation. These provisions have been made by many of the States, and the following is a list of those legislating to a greater or less extent upon this subject: California (chapter 51, acts of 1891), Colorado (chapter 2, acts of 1897), Connecticut (chapter 239, acts of 1895), Idaho (page 141, acts of 1897), Indiana (chapter 128, acts of 1899), Kansas (chapter 28, acts of 1898-99), Louisiana (act No. 139, acts of 1894), Maryland (sections 1 to 6 of article 7, Code of Public General Laws), Massachusetts (chapter 263, acts of 1886), Michigan (act No. 238, acts of 1889), Minnesota (chapter 170, acts of 1895), Missouri (sections 6354 to 6358, Revised Statutes of 1889), Montana (sections 3330 to 3338, Codes and Statutes of 1895), New Jersey (chapter 137, acts of 1892), New York (article 10 of chapter 415, acts of 1897), Ohio (page 83, acts of 1893), Pennsylvania (pages 132, 133, and 290, Digest of 1895), Texas (chapter 61, acts of 1895), Utah (chapter 62, acts of 1896), Wisconsin (chapter 364, acts of 1895), and Wyoming (constitution, section 1 of article 19).

The majority of these acts provide for the formation of a permanent State board of arbitration before which, by mutual consent, disputes and controversies between employers and employees may be arbitrated. As an illustration of an act of this kind, the Massachusetts statute, chapter 263 of the acts of 1886, and amended by several acts passed since 1886, is given below:

SECTION 1 (as amended by chapter 269, acts of 1887, and by chapter 261, acts of 1888). The governor, with the advice and consent of the council, shall, on or before the first day of July in the year eighteen hundred and eighty-six, appoint three competent persons to serve as a State board of arbitration and conciliation in the manner hereinafter provided. One of them shall be an employer or selected from some association representing employers of labor, one of them shall be selected from some labor organization and not an employer of labor, the third shall be appointed upon the recommendation of the other two: *Provided, however,* That if the two appointed do not agree on the third man at the expiration of thirty days, he shall then be appointed by the governor. They shall hold office for one year or until their successors are appointed. On the first day of July in the year eighteen hundred and eighty-seven the governor, with the advice and consent of the council, shall appoint three members of said board in the manner above provided, one to serve for three years, one for two years, and one for one year, or until their respective successors are appointed; and on the first day of July in each year thereafter the governor shall in the same manner appoint one member of said board to succeed the member whose term then expires, and to serve for the term of three years or until his successor is appointed. If a vacancy occurs at any time, the governor shall in the same manner appoint some one to serve out the unexpired term; and he may in like manner remove any member of said board. Each member of said board shall,

before entering upon the duties of his office, be sworn to a faithful discharge thereof. They shall at once organize by the choice of one of their number as chairman. Said board may appoint and remove a clerk of the board, who shall receive such salary as may be allowed by the board, but not exceeding twelve hundred dollars a year.

SEC. 2. The board shall, as soon as possible after its organization, establish such rules of procedure as shall be approved by the governor and council.

SEC. 3 (as amended by chapter 269, acts of 1887). Whenever any controversy or difference, not involving questions which may be the subject of a suit at law or bill in equity, exists between an employer, whether an individual, copartnership or corporation, and his employees, if at the time he employs not less than twenty-five persons in the same general line of business in any city or town in this Commonwealth, the board shall, upon application as hereinafter provided, and as soon as practicable thereafter, visit the locality of the dispute and make careful inquiry into the cause thereof, hear all persons interested therein who may come before them, advise the respective parties what, if anything, ought to be done or submitted to by either or both to adjust said dispute, and make a written decision thereof. This decision shall at once be made public, shall be recorded upon proper books of record to be kept by the secretary of said board, and a short statement thereof published in the annual report hereinafter provided for, and the said board shall cause a copy thereof to be filed with the clerk of the city or town where said business is carried on.

SEC. 4 (as amended by chapter 269, acts of 1887, and chapter 385, acts of 1890). Said application shall be signed by said employer, or by a majority of his employees in the department of the business in which the controversy or difference exists, or their duly authorized agent or by both parties, and shall contain a concise statement of the grievances complained of, and a promise to continue on in business or at work without any lockout or strike until the decision of said board, if it shall be made within three weeks of the date of filing said application. When an application is signed by an agent claiming to represent a majority of such employees, the board shall satisfy itself that such agent is duly authorized in writing to represent such employees, but the names of the employees giving such authority shall be kept secret by said board. As soon as may be after the receipt of said application the secretary of said board shall cause public notice to be given of the time and place for the hearing thereon; but public notice need not be given when both parties to the controversy join in the application and present therewith a written request that no public notice be given. When such request is made, notice shall be given to the parties interested in such manner as the board may order, and the board may, at any stage of the proceedings, cause public notice to be given, notwithstanding such request. When notice has been given as aforesaid, each of the parties to the controversy, the employer on the one side, and the employees interested on the other side, may in writing nominate, and the board may appoint, one person to act in the case as expert assistant to the board. The two persons so appointed shall be skilled in and conversant with the business or trade concerning which the dispute has arisen. It shall be their duty under the direction of the board to obtain and report to the board information concerning the wages paid and the methods and grades of work prevailing in manufacturing estab-

lishments within the Commonwealth of a character similar to that in which the matters in dispute may have arisen. Said expert assistants shall be sworn to the faithful discharge of their duty; such oath to be administered by any member of the board, and a record thereof shall be preserved with the record of the proceedings in the case. They shall be entitled to receive from the treasury of the Commonwealth such compensation as shall be allowed and certified by the board, together with all necessary traveling expenses. Nothing in this act shall be construed to prevent the board from appointing such other additional expert assistant or assistants as it may deem necessary. Should the petitioner or petitioners fail to perform the promise made in said application, the board shall proceed no further thereupon without the written consent of the adverse party. The board shall have power to summon as witness any operative in the departments of business affected, and any person who keeps the records of wages earned in those departments, and to examine them under oath, and to require the production of books containing the record of wages paid. Summonses may be signed and oaths administered by any member of the board.

SEC. 5. Upon the receipt of such application and after such notice, the board shall proceed as before provided and render a written decision, which shall be open to public inspection, shall be recorded upon the records of the board and published at the discretion of the same, in an annual report to be made to the general court on or before the first day of February in each year.

SEC. 6. Said decision shall be binding upon the parties who join in said application for six months, or until either party has given the other notice in writing of his intention not to be bound by the same at the expiration of sixty days therefrom. Said notice may be given to said employees by posting the same in three conspicuous places in the shop or factory where they work.

SEC. 7 (as amended by chapter 269, acts of 1887). The parties to any controversy or difference as described in section three of this act may submit the matters in dispute, in writing, to a local board of arbitration and conciliation; such board may either be mutually agreed upon, or the employer may designate one of the arbitrators, the employees or their duly authorized agent another, and the two arbitrators so designated may choose a third, who shall be chairman of the board. Such board shall, in respect to the matters referred to it, have and exercise all the powers which the State board might have and exercise, and its decision shall have whatever binding effect may be agreed by the parties to the controversy in the written submission. The jurisdiction of such board shall be exclusive in respect to the matters submitted to it, but it may ask and receive the advice and assistance of the State board. The decision of such board shall be rendered within ten days of the close of any hearing held by it; such decision shall at once be filed with the clerk of the city or town in which the controversy or difference arose, and a copy thereof shall be forwarded to the State board. Each of such arbitrators shall be entitled to receive from the treasury of the city or town in which the controversy or difference is the subject of the arbitration exists, if such payment is approved in writing by the mayor of such city or the board of selectmen of such town, the sum of three dollars for each day of actual service, not exceeding ten days for any one arbitration. Whenever it is made to appear to the mayor of a city or the

board of selectmen of a town that a strike or lockout such as described in section eight of this act is seriously threatened or actually occurs, the mayor of such city or the board of selectmen of such town shall at once notify the State board of the facts.

SEC. 8 (as amended by chapter 269, acts of 1887). Whenever it shall come to the knowledge of the State board, either by notice from the mayor of a city or the board of selectmen of a town, as provided in the preceding section or otherwise, that a strike or lockout is seriously threatened or has actually occurred in any city or town of the Commonwealth, involving an employer and his present or past employees, if at the time he is employing, or up to the occurrence of the strike or lockout was employing not less than twenty-five persons in the same general line of business in any city or town in the Commonwealth, it shall be the duty of the State board to put itself in communication as soon as may be with such employer and employees, and endeavor by mediation to effect an amicable settlement between them, or to endeavor to persuade them, provided that a strike or lockout has not actually occurred or is not then continuing, to submit the matters in dispute to a local board of arbitration and conciliation, as above provided, or to the State board; and said State board may, if it deems it advisable, investigate the cause or causes of such controversy and ascertain which party thereto is mainly responsible or blameworthy for the existence or continuance of the same, and may make and publish a report finding such cause or causes and assigning such responsibility or blame. The board shall have the same powers for the foregoing purposes as are given it by section three of this act.

SEC. 9. Witnesses summoned by the State board shall be allowed the sum of fifty cents for each attendance, and the further sum of twenty-five cents for each hour of attendance in excess of two hours and shall be allowed five cents a mile for travel each way from their respective places of employment or business to the place where the board is in session. Each witness shall certify in writing the amount of his travel and attendance, the amount due him shall be paid forthwith by the board, and for such purpose the board shall be entitled to draw from the treasury of the Commonwealth as provided for in chapter one hundred and seventy-nine of the acts of the year eighteen hundred and eighty-four.

Those States whose statutes agree with that of Massachusetts in the particular of forming a permanent State body are California, Colorado, Connecticut, Idaho, Indiana, Louisiana, Massachusetts, Michigan, Minnesota, Montana, New Jersey, New York, Ohio, Utah, and Wisconsin.

It will be noticed that section 7 of the above statute of Massachusetts provides for the formation of local boards of arbitration. The statutes of Colorado, Idaho, Minnesota, Montana, New Jersey, New York, Ohio, and Wisconsin contain the same provision.

Section 8 of the Massachusetts act provides that the State board shall attempt to mediate between the employer and his employees whenever they shall hear that a strike or lockout is threatened or has occurred, etc. The States of Colorado, Connecticut, Idaho, Indiana, Louisiana, Michigan, Minnesota, Missouri, Montana, New Jersey, New York, Ohio, Utah, and Wisconsin also have this provision.

The State of Colorado also has a statute, section 307 of the Annotated Statutes of 1891, which provides for an attempt at mediation similar to that above, but to be made by the State commissioner of labor statistics. It reads as follows:

SECTION 307. If any difference shall arise between any corporation or person, employing twenty-five or more employees, and such employees, threatening to result or resulting in a strike on the part of such employees, or a lockout on the part of such employer, it shall be the duty of the commissioner [of labor], when requested so to do by fifteen or more of said employees, or by the employers, to visit the place of such disturbance, and diligently seek to mediate between such employer and employees.

The statute of the State of Missouri, a part of the Revised Statutes of 1889, is somewhat similar to that of Colorado, above, and also provides for the formation of a temporary board of arbitration to act in any particular case, if the commissioner of labor fails in his efforts to mediate. It appears below:

SECTION 6354. Upon information furnished by an employer of laborers, or by a committee of employees, or from any other reliable source, that a dispute has arisen between employers and employees, which dispute may result in a strike or lockout, the commissioner of labor statistics and inspection shall at once visit the place of dispute and seek to mediate between the parties, if in his discretion it is necessary so to do.

SEC. 6355. If a mediation can not be effected, the commissioner may at his discretion direct the formation of a board of arbitration, to be composed of two employers and two employees engaged in a similar occupation to the one in which the dispute exists, but who are not parties to the dispute, and the commissioner of labor statistics and inspection, who shall be president of the board.

SEC. 6356. The board shall have power to summon and examine witnesses, and hear the matter in dispute, and, within three days after the investigation, render a decision thereon, which shall be published, a copy of which shall be furnished each party in dispute, and shall be final, unless objections are made by either party within five days thereafter: *Provided*, That the only effect of the investigation herein provided for shall be to give the facts leading to such dispute to the public through an unbiased channel.

SEC. 6357. In no case shall a board of arbitration be formed when work has been discontinued, either by action of the employer or the employees; should, however, a lockout or strike have occurred before the commissioner of labor statistics could be notified, he may order the formation of a board of arbitration upon resumption of work.

SEC. 6358. The board of arbitration shall appoint a clerk at each session of the board, who shall receive three dollars per day for his services, to be paid, upon approval by the commissioner of labor statistics, out of the fund appropriated for expenses of the bureau of labor statistics.

This act has an unusual provision to the effect that a board of arbitration may be appointed by the commissioner of labor in "his discretion," without the request or even the consent of even one of the

parties, after the failure of an attempt on his part to mediate, and that the decision of a board so formed shall be "final" unless objection is made by either party within five days of its rendition. This looks like compulsory arbitration, but the law itself makes it clear that such decision can not be used to compel either party to perform any act or acts contrary to its desire, for, as provided therein, its only effect is "to give the facts leading to such dispute to the public through an unbiased channel."

Although the State of Indiana is included in the above list of States having statutes providing for permanent boards of arbitration, yet its statute, being chapter 128, acts of 1899, has many features quite different from those of the other States in the same class, and is therefore given in full below:

SECTION 1. There shall be, and is hereby, created a commission to be composed of two electors of the State, which shall be designated the labor commission, and which shall be charged with the duties and vested with the powers hereinafter enumerated.

SEC. 2. The members of said commission shall be appointed by the governor, by and with the advice and consent of the senate, and shall hold office for four years and until their successors shall have been appointed and qualified. One of said commissioners shall have been for not less than ten years of his life an employee for wages in some department of industry in which it is usual to employ a number of persons under single direction and control, and shall be at the time of his appointment affiliated with the labor interest as distinguished from the capitalist or employing interest. The other of said commissioners shall have been for not less than ten years an employer of labor for wages in some department of industry in which it is usual to employ a number of persons under single direction and control, and shall be at the time of his appointment affiliated with the employing interest as distinguished from the labor interest. Neither of said commissioners shall be less than forty years of age; they shall not be members of the same political party, and neither of them shall hold any other State, county, or city office in Indiana during the term for which he shall have been appointed. Each of said commissioners shall take and subscribe an oath, to be indorsed upon his commission, to the effect that he will punctually, honestly, and faithfully discharge his duties as such commissioner.

SEC. 3. Said commission shall have a seal and shall be provided with an office at Indianapolis, and may appoint a secretary who shall be a skillful stenographer and typewriter, and shall receive a salary of six hundred dollars per annum and traveling expenses for every day spent in the discharge of duty away from Indianapolis.

SEC. 4. It shall be the duty of said commissioners upon receiving credible information in any manner of the existence of any strike, lock-out, boycott, or other labor complication in this State, to go to the place where such complication exists, put themselves into communication with the parties to the controversy and offer their services as mediators between them. If they shall not succeed in effecting an amicable adjustment of the controversy in that way they shall endeavor to

induce the parties to submit their differences to arbitration, either under the provisions of this act or otherwise, as they may elect.

SEC. 5. For the purpose of arbitration under this act, the labor commissioners and the judge of the circuit court, of the county in which the business in relation to which the controversy shall arise, shall have been carried on, shall constitute a board of arbitrators, to which may be added, if the parties so agree, two other members, one to be named by the employer and the other by the employees in the arbitration agreement. If the parties to the controversy are a railroad company and employees of the company engaged in the running of trains, any terminal, within this State, of the road, or of any division thereof, may be taken and treated as the location of the business within the terms of this section for the purpose of giving jurisdiction to the judge of the circuit court to act as a member of the board of arbitration.

SEC. 6. An agreement to enter into arbitration under this act shall be in writing, and shall state the issue to be submitted and decided, and shall have the effect of an agreement by the parties to abide by and perform the award. Such agreement may be signed by the employer as an individual, firm, or corporation, as the case may be, and execution of the agreement in the name of the employer by any agent or representative of such employer then and there in control or management of the business or department of business in relation to which the controversy shall have arisen, shall bind the employer. On the part of the employees, the agreement may be signed by them in their own person, not less than two-thirds of those concerned in the controversy signing, or it may be signed by a committee by them appointed. Such committee may be created by election at a meeting of the employees concerned in the controversy at which not less than two-thirds of all such employees shall be present, which election and the fact of the presence of the required number of employees at the meeting shall be evidenced by the affidavit of the chairman and secretary of such meeting attached to the arbitration agreement, but any employee concerned in any such controversy shall be accorded a hearing before such board. If the employees concerned in the controversy, or any of them, shall be members of any labor union or workingmen's society, they may be represented in the execution of said arbitration agreement by officers or committeemen of the union or society designated by it in any manner conformable to its usual methods of transacting business, and others of the employees represented by committee as hereinbefore provided.

SEC. 7. If upon any occasion calling for the presence and intervention of the labor commissioners under the provisions of this act, one of said commissioners shall be present and the other absent, the judge of the circuit court of the county in which the dispute shall have arisen, as defined in section 5, shall, upon the application of the commissioners present, appoint a commissioner pro tem. in the place of the absent commissioner, and such commissioner pro tem. shall exercise all the powers of a commissioner under this act until the termination of the duties of the commission with respect to the particular controversy upon the occasion of which the appointment shall have been made, and shall receive the same pay and allowances provided by this act for the other commissioners. Such commissioner pro tem. shall represent and be affiliated with the same interests as the absent commissioner.

SEC. 8. Before entering upon their duties the arbitrators shall take and subscribe an oath or affirmation to the effect that they will honestly and impartially perform their duties as arbitrators and a just and fair award render to the best of their ability. The sittings of the arbitrators shall be in the court room of the circuit court, or such other place as shall be provided by the county commissioners of the county in which the hearing is had. The circuit judge shall be the presiding member of the board. He shall have power to issue subpoenas for witnesses who do not appear voluntarily, directed to the sheriff of the county, whose duty it shall be to serve the same without delay. He shall have power to administer oaths and affirmations to witnesses, enforce order, and direct and control the examinations. The proceedings shall be informal in character, but in general accordance with the practice governing the circuit courts in the trial of civil causes. All questions of practice, or questions relating to the admission of evidence shall be decided by the presiding member of the board summarily and without extended argument. The sittings shall be open and public or with closed doors, as the board shall direct. If five members are sitting as such board three members of the board agreeing shall have power to make an award, otherwise two. The secretary of the commission shall attend the sittings and make a record of the proceedings in shorthand, but shall transcribe so much thereof only as the commission shall direct.

SEC. 9. The arbitrators shall make their award in writing and deliver the same with the arbitration agreement and their oath as arbitrators to the clerk of the circuit court of the county in which the hearing was had, and deliver a copy of the award to the employer and a copy to the first signer of the arbitration agreement on the part of the employees. A copy of all the papers shall also be preserved in the office of the commission at Indianapolis.

SEC. 10. The clerk of the circuit court shall record the papers delivered to him as directed in the last preceding section, in the order book of the circuit court. Any person who was a party to the arbitration proceedings may present to the circuit court of the county in which the hearing was had, or the judge thereof in vacation, a verified petition referring to the proceedings and the record of them in the order book and showing that said award has not been complied with, stating by whom and in what respect it has been disobeyed. And thereupon the court, or judge thereof in vacation, shall grant a rule against the party or parties so charged, to show cause within five days why said award has not been obeyed, which shall be served by the sheriff as other process. Upon return made to the rule the judge or court, if in session, shall hear and determine the questions presented and make such order or orders directed to the parties before him in personam, as shall give just effect to the award. Disobedience by any party to such proceedings of any order so made shall be deemed a contempt of the court and may be punished accordingly. But such punishment shall not extend to imprisonment except in case of willful and contumacious disobedience. In all proceedings under this section the award shall be regarded as presumptively binding upon the employer and all employees who were parties to the controversy submitted to arbitration, which presumption shall be overcome only by proof of dissent from the submission delivered to the arbitrators, or one of them, in writing before the commencement of the hearing.

SEC. 11. The labor commission, with the advice and assistance of the attorney-general of the State, which he is hereby required to render, may make rules and regulations respecting proceedings in arbitrations under this act not inconsistent with this act or the law, including forms, and cause the same to be printed and furnished to all persons applying therefor, and all arbitration proceedings under this act shall thereafter conform to such rules and regulations.

SEC. 12. Any employer and his employees, not less than twenty-five in number, between whom differences exist which have not resulted in any open rupture or strike, may of their own motion apply to the labor commission for arbitration of their differences, and upon the execution of an arbitration agreement as hereinbefore provided a board of arbitrators shall be organized in the manner hereinbefore provided, and the arbitration shall take place and the award be rendered, recorded, and enforced in the same manner as in arbitrations under the provisions found in the preceding sections of this act.

SEC. 13. In all cases arising under this act requiring the attendance of a judge of the circuit court as a member of an arbitration board, such duty shall have precedence over any other business pending in his court, and if necessary for the prompt transaction of such other business it shall be his duty to appoint some other circuit judge or judge of a superior or the appellate or supreme court to sit in the circuit court in his place during the pendency of such arbitration, and such appointee shall receive the same compensation for his services as is now allowed by law to judges appointed to sit in case of change of judge in civil actions. In case the judge of the circuit court, whose duty it shall become under this act to sit upon any board of arbitration, shall be at the time actually engaged in a trial which can not be interrupted without loss and injury to the parties, and which will in his opinion continue for more than three days to come, or is disabled from acting by sickness or otherwise, it shall be the duty of such judge to call in and appoint some other circuit judge, or some judge of a superior court, or the appellate or supreme court, to sit upon such board of arbitration, and such appointed judge shall have the same power and perform the same duties as member of the board of arbitration as are by this act vested in and charged upon the circuit judge regularly sitting, and he shall receive the same compensation now provided by law to a judge sitting by appointment upon a change of judge in civil cases to be paid in the same way.

SEC. 14. If the parties to any such labor controversy as is defined in section 4 of this act shall have failed at the end of five days after the first communication of said labor commission with them to adjust their differences amicably, or to agree to submit the same to arbitration, it shall be the duty of the labor commission to proceed at once to investigate the facts attending the disagreement. In this investigation the commission shall be entitled, upon request, to the presence and assistance of the attorney-general of the State, in person or by deputy, whose duty it is hereby made to attend without delay, upon request by letter or telegram from the commission. For the purpose of such investigation the commission shall have power to issue subpoenas, and each of the commissioners shall have power to administer oaths and affirmations. Such subpoena shall be under the seal of the commission and signed by the secretary of the commission, or a member of it, and shall command the attendance of the person or persons

named in it at a time and place named, which subpoena may be served and returned as other process by any sheriff or constable in the State. In case of disobedience of any such subpoena, or the refusal of any witness to testify, the circuit court of the county within which the subpoena was issued, or the judge thereof in vacation, shall, upon the application of the labor commission, grant a rule against the disobeying person or persons, or the person refusing to testify, to show cause forthwith why he or they should not obey such subpoena, or testify, as required by the commission, or be adjudged guilty of contempt, and in such proceedings such court, or the judge thereof in vacation, shall be empowered to compel obedience to such subpoena as in the case of subpoena issued under the order and by authority of the court, or to compel a witness to testify as witnesses in court are compelled to testify. But no person shall be required to attend as a witness at any place outside the county of his residence. Witnesses called by the labor commission under this section shall be paid \$1 per diem fees out of the expense fund provided by this act, if such payment is claimed at the time of their examination.

SEC. 15. Upon the completion of the investigation authorized by the last preceding section, the labor commission shall forthwith report the facts thereby disclosed affecting the merits of the controversy in succinct and condensed form to the governor, who, unless he shall perceive good reason to the contrary, shall at once authorize such report to be given out for publication. And as soon thereafter as practicable, such report shall be printed under the direction of the commission and a copy shall be supplied to anyone requesting the same.

SEC. 16. Any employer shall be entitled, in his response to the inquiries made of him by the commission in the investigation provided for in the last two preceding sections, to submit in writing to the commission, a statement of any facts material to the inquiry, the publication of which would be likely to be injurious to his business, and the facts so stated shall be taken and held as confidential, and shall not be disclosed in the report or otherwise.

SEC. 17. Said commissioners shall receive a compensation of eighteen hundred dollars each per annum, and actual and necessary traveling expenses while absent from home in the performance of duty, and each of the two members of a board of arbitration chosen by the parties under the provisions of this act shall receive five dollars per day compensation for the days occupied in service upon the board. The attorney-general, or his deputy, shall receive his necessary and actual traveling expenses while absent from home in the service of the commission. Such compensation and expenses shall be paid by the treasurer of state upon warrants drawn by the auditor upon itemized and verified accounts of time spent and expenses paid. All such accounts, except those of the commissioners, shall be certified as correct by the commissioners, or one of them, and the accounts of the commissioners shall be certified by the secretary of the commission.

SEC. 18. For the payment of the salary of the secretary of the commission, the compensation of the commissioners and other arbitrators, the traveling and hotel expenses herein authorized to be paid, and for witness fees, stationery, postage, telegrams, and office expenses there is hereby appropriated out of any money in the treasury, not otherwise appropriated, the sum of five thousand dollars for the year 1899 and five thousand dollars for the year 1900.

Certain other States have statutes providing for the appointment of temporary "boards" or "tribunals of arbitration" and "courts of conciliation." They are as follows:

Iowa, chapter 20, acts of 1886. This statute provides in effect that a tribunal of voluntary arbitration may be formed to arbitrate in any particular case under a license or authority to establish the same, issued by any district court upon the presentation to said court of a petition or agreement signed by both parties to the dispute, the employer and his employees, and that when such a tribunal has been formed it shall exist for one year, and during that time may hear any disputes presented to it by the agreement of both parties.

Maryland, sections 1 to 6 of article 7, Code of Public General Laws of 1888. This law provides that upon the agreement of both parties to a dispute any judge or justice of the peace in the State may hear and arbitrate the matter between them or may appoint a board of arbitration to so do.

Pennsylvania, two statutes, being sections 67 to 80, inclusive, on page 133 of the Digest of 1895, and sections 1 to 9, inclusive, on page 290 of said digest. The first act provides for the appointment of courts of conciliation by certain judges upon the presentation of a petition or agreement signed by both parties; that one such tribunal may be appointed for each of iron, steel, glass, textile fabrics, and coal trades in each judicial district and may continue in existence for one year; the second provides for the formation of boards of arbitration upon the application, not only of both the parties to the controversy, but also upon the application of one side only. This differs from all the other statutes heretofore considered in that the consent of both parties to the arbitration is not necessary, and the arbitration thereunder is not of necessity voluntary, but may be forced upon one party at the request of the other, the decision of the board being, under this law, "final and conclusive of all matters brought before it for judgment." This latter statute of Pennsylvania does not seem to have come before the courts for interpretation, and should it ever do so, it will be of interest to see if an act which might force one party against his will either to take part in arbitration proceedings, or, if he refuses so to do, to abide by a decision rendered in his absence, will stand the test of the Constitution. But one other State, Kansas (see page 67), has a statute providing for compulsory arbitration. Said statute does not, however, belong to the class considered above, which provides for the formation of temporary boards of arbitration, and will therefore be considered later.

The last State coming in this class is Texas, whose statute, chapter 61, acts of 1895, provides for the formation of a board by the mutual agreement of the two parties to a labor dispute; that said board, having been organized, may petition the district judge of the county

where the dispute arose for a license, which shall be granted by him, and he shall refer to it the matters in dispute if all requirements of the statute have been complied with, and that the decision of such board is final unless within ten days from the making of the same an appeal is taken to the court of civil appeals.

The State of Kansas, in chapter 28, acts of 1898-99, creates a "court of visitation," which, among other powers, has the power of supervision of railroads, and to hear and decide upon its own volition all matters in dispute between an employing railroad corporation and its employees in case of a strike. The statute is in the following language:

SECTION 1. A court of record to be known as the court of visitation, consisting of a chief judge and two associate judges (a majority of whom shall constitute a quorum), is hereby created. The senior judge in service shall be the chief judge; but in case two or more judges shall have served equal time the judges shall select a chief judge. No person shall hold the office of judge who is interested in any railroad company or any of the stocks or bonds thereof, or who is an officer or employee of any railroad company, nor shall any such judge hold any other office under the United States or this State, or engage in the practice of law, during his term of office. Any elector of the State not disqualified by the provisions of this act shall be eligible to the office of judge of said court. The court shall adopt a seal, which shall be furnished by the secretary of state.

SEC. 8. The court of visitation shall have power and jurisdiction throughout the State—

* * * * *

8th. To prescribe rules concerning the movement of trains, to secure the safety of employees and the public;

9th. To require the use of improved appliances and methods, to avoid accidents and injuries to persons;

* * * * *

SEC. 42. Whenever it shall be made to appear to said court by affidavit that a strike by the employees, or part of them, of any railroad company organized under the laws of this State or doing business therein is obstructing commerce or the traffic on such railroad and inconveniencing the public, or the people of any municipality, or endangers or threatens the public tranquillity, said court shall issue a citation requiring said corporation to appear before it, at a day and hour named, and make answer, verified by the positive oath of an officer or agent of said corporation residing in this State and then present therein, concerning the said strike, its extent, the cause or causes thereof, what conduct, if any, of said corporation or its officers led to such strike, and the precise point or points of dispute between said corporation and its striking employees. If said answer be not made at the time fixed, or be evasive, the court shall make a final decree as upon hearing and enforce the same as such. If said answer be properly made, the matter shall be without further delay summarily heard upon evidence; and if the corporation be found free from fault in the premises and the strike unreasonable, the court shall so find, and the said proceedings shall be dismissed; and thereupon, and upon

public notice as ordered by the court given of such decision, it shall be unlawful for said strikers or any of them to interfere in any manner whatever, by word or deed, with any other employees said corporation may employ and set to work. But if the court shall find that said corporation has failed in its duty toward its employees, or any of them, or has been unreasonable, tyrannical, oppressive, or unjust, and the strike resulted therefrom, the court shall so find specifically, and shall enter a decree commanding such corporation to proceed forthwith to perform its usual functions for the public convenience, and to the usual extent and with the usual facilities, as before said strike occurred; and if said decree shall not be implicitly obeyed, in full and in good faith, the court may take charge of said corporation's property and operate the same through a receiver or receivers appointed by said court until the court shall be satisfied that said corporation is prepared to fully resume its functions; all costs to be paid by said corporation. If, in answer to said original process ordering it to show cause as aforesaid, said corporation shall show to the court's satisfaction that said striking employees have resumed work and said strike has ended, the proceeding shall be dismissed. If in such answer it shall show to the court's satisfaction that said striking employees have resumed work under an agreement to remain in said corporation's service pending the hearing of the proceedings, and that the corporation will abide by the terms of said agreement, then, and only in such case, the hearing of said matter in controversy concerning the cause or causes of said strike may be postponed on request a reasonable time, or from time to time, while said employees so remain at work; and upon settlement of said strike said proceedings may be at any time dismissed; but if said employees again quit work, said matter shall be brought to an immediate hearing and decree, notwithstanding a pending postponement.

This act, while not in terms providing for compulsory arbitration, yet does so provide in effect. The court established by it is empowered, in case of a strike by the employees of any railroad company doing business in the State of Kansas, which causes an obstruction of commerce, etc., to cite the company before it, to hear witnesses, and to render a decision, whether the company or its employees, either or both, have been represented at the hearing or not. In order to enforce its decree as against the company said court is also empowered to take charge of the property of said company and to operate it through a receiver appointed by it.

A recent decision has been rendered by the United States circuit court, eighth circuit, district of Kansas, construing this statute and declaring it to be, in part at least, unconstitutional and void. In its opinion the following language was used by the court: "The law creating the court of visitation is in contravention of the constitution of the State of Kansas which inhibits the conferring of inconsistent legislative and judicial powers upon the same body, to be exercised regarding the same subject-matter. The act is either wholly void or void to the extent that it attempts to confer judicial powers upon that body. It is unnecessary to determine in this case whether the court

of visitation, though possessing no judicial functions, may still have and exercise the legislative and administrative powers specified in the acts of the legislature." Though the above case arose under different sections of the act than that shown above, said sections providing for the fixing of rates of charges by the board and enforcement of said rates when so fixed by the sequestration of the property of the company, placing it in the hands of a receiver, etc., yet its reasoning would seem to apply equally to said section 42.

If, however, it does not apply, still the further finding of the court in its decision to the effect that the sections under consideration were violative of the fourteenth amendment to the Constitution of the United States, as depriving the company of its property without due process of law, would certainly seem to apply to section 42.

The last to be mentioned of all the arbitration acts is the Federal statute, being chapter 370 of the acts of Congress of 1897-98. It applies only to common carriers engaged in interstate commerce, and provides for an attempt to be made at mediation by two government officials in case of any controversy between such a common carrier and its employees and for the formation of a board of arbitration consisting of the same officials, together with certain other parties to be selected in case the attempt at mediation fails. This board, however, is to be formed only at the request or upon the consent of both parties to the controversy; in other words, the arbitration, if had at all, is to be purely voluntary. The statute reads as follows:

SECTION 1. The provisions of this act shall apply to any common carrier or carriers and their officers, agents, and employees, except masters of vessels and seamen, as defined in section forty-six hundred and twelve, Revised Statutes of the United States, engaged in the transportation of passengers or property wholly by railroad, or partly by railroad and partly by water, for a continuous carriage or shipment, from one State or Territory of the United States, or the District of Columbia, to any other State or Territory of the United States, or the District of Columbia, or from any place in the United States to an adjacent foreign country, or from any place in the United States through a foreign country to any other place in the United States. The term "railroad" as used in this act shall include all bridges and ferries used or operated in connection with any railroad, and also all the road in use by any corporation operating a railroad, whether owned or operated under a contract, agreement, or lease; and the term "transportation" shall include all instrumentalities of shipment or carriage. The term "employees" as used in this act shall include all persons actually engaged in any capacity in train operation or train service of any description, and notwithstanding that the cars upon or in which they are employed may be held and operated by the carrier under lease or other contract: *Provided, however,* That this act shall not be held to apply to employees of street railroads and shall apply only to employees engaged in railroad train service. In every such case the carrier shall be responsible for the acts and defaults of such employees in the same manner and

to the same extent as if said cars were owned by it and said employees directly employed by it, and any provisions to the contrary of any such lease or other contract shall be binding only as between the parties thereto and shall not affect the obligations of said carrier either to the public or to the private parties concerned.

SEC. 2. Whenever a controversy concerning wages, hours of labor, or conditions of employment shall arise between a carrier subject to this act and the employees of such carrier, seriously interrupting or threatening to interrupt the business of said carrier, the chairman of the Interstate Commerce Commission and the Commissioner of Labor shall, upon the request of either party to the controversy, with all practicable expedition, put themselves in communication with the parties to such controversy, and shall use their best efforts, by mediation and conciliation, to amicably settle the same; and if such efforts shall be unsuccessful, shall at once endeavor to bring about an arbitration of said controversy in accordance with the provisions of this act.

SEC. 3. Whenever a controversy shall arise between a carrier subject to this act and the employees of such carrier which can not be settled by mediation and conciliation in the manner provided in the preceding section, said controversy may be submitted to the arbitration of a board of three persons, who shall be chosen in the manner following: One shall be named by the carrier or employer directly interested; the other shall be named by the labor organization to which the employees directly interested belong, or, if they belong to more than one, by that one of them which specially represent employees of the same grade and class and engaged in services of the same nature as said employees so directly interested: *Provided, however,* That when a controversy involves and affects the interest of two or more classes and grades of employees belonging to different labor organizations, such arbitrator shall be agreed upon and designated by the concurrent action of all such labor organizations; and in cases where the majority of such employees are not members of any labor organization, said employees may by a majority vote select a committee of their own number, which committee shall have the right to select the arbitrator on behalf of said employees. The two thus chosen shall select the third commissioner of arbitration; but, in the event of their failure to name such arbitrator within five days after their first meeting, the third arbitrator shall be named by the commissioners named in the preceding section. A majority of said arbitrators shall be competent to make a valid and binding award under the provisions hereof. The submission shall be in writing, shall be signed by the employer and by the labor organization representing the employees, shall specify the time and place of meeting of said board of arbitration, shall state the questions to be decided, and shall contain appropriate provisions by which the respective parties shall stipulate, as follows:

First. That the board of arbitration shall commence their hearings within ten days from the date of the appointment of the third arbitrator, and shall find and file their award, as provided in this section, within thirty days from the date of the appointment of the third arbitrator; and that pending the arbitration the status existing immediately prior to the dispute shall not be changed: *Provided,* That no employee shall be compelled to render personal service without his consent.

Second. That the award and the papers and proceedings, including the testimony relating thereto certified under the hands of the arbitra-

tors and which shall have the force and effect of a bill of exceptions, shall be filed in the clerk's office of the circuit court of the United States for the district wherein the controversy arises or the arbitration is entered into, and shall be final and conclusive upon both parties, unless set aside for error of law apparent on the record.

Third. That the respective parties to the award will each faithfully execute the same, and that the same may be specifically enforced in equity so far as the powers of a court of equity permit: *Provided*, That no injunction or other legal process shall be issued which shall compel the performance by any laborer against his will of a contract for personal labor or service.

Fourth. That employees dissatisfied with the award shall not by reason of such dissatisfaction quit the service of the employer before the expiration of three months from and after the making of such award without giving thirty days' notice in writing of their intention so to quit. Nor shall the employer dissatisfied with such award dismiss any employee or employees on account of such dissatisfaction before the expiration of three months from and after the making of such award without giving thirty days' notice in writing of his intention so to discharge.

Fifth. That said award shall continue in force as between the parties thereto for the period of one year after the same shall go into practical operation, and no new arbitration upon the same subject between the same employer and the same class of employees shall be had until the expiration of said one year if the award is not set aside as provided in section four. That as to individual employees not belonging to the labor organization or organizations which shall enter into the arbitration, the said arbitration and the award made therein shall not be binding, unless the said individual employees shall give assent in writing to become parties to said arbitration.

SEC. 4. The award being filed in the clerk's office of a circuit court of the United States, as hereinbefore provided, shall go into practical operation, and judgment shall be entered thereon accordingly at the expiration of ten days from such filing, unless within such ten days either party shall file exceptions thereto for matter of law apparent upon the record, in which case said award shall go into practical operation and judgment be entered accordingly when such exceptions shall have been finally disposed of either by said circuit court or on appeal therefrom.

At the expiration of ten days from the decision of the circuit court upon exceptions taken to said award, as aforesaid, judgment shall be entered in accordance with said decision unless during said ten days either party shall appeal therefrom to the circuit court of appeals. In such case only such portion of the record shall be transmitted to the appellate court as is necessary to the proper understanding and consideration of the questions of law presented by said exceptions and to be decided.

The determination of said circuit court of appeals upon said questions shall be final, and being certified by the clerk thereof to said circuit court, judgment pursuant thereto shall thereupon be entered by said circuit court.

If exceptions to an award are finally sustained, judgment shall be entered setting aside the award. But in such case the parties may agree upon a judgment to be entered disposing of the subject matter

of the controversy, which judgment when entered shall have the same force and effect as judgment entered upon an award.

SEC. 5. For the purposes of this act the arbitrators herein provided for, or either of them, shall have power to administer oaths and affirmations, sign subpoenas, require the attendance and testimony of witnesses, and the production of such books, papers, contracts, agreements, and documents material to a just determination of the matters under investigation as may be ordered by the court; and may invoke the aid of the United States courts to compel witnesses to attend and testify and to produce such books, papers, contracts, agreements, and documents to the same extent and under the same conditions and penalties as is provided for in the act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, and the amendments thereto.

SEC. 6. Every agreement of arbitration under this act shall be acknowledged by the parties before a notary public or clerk of a district or circuit court of the United States, and when so acknowledged a copy of the same shall be transmitted to the chairman of the Interstate Commerce Commission, who shall file the same in the office of said commission.

Any agreement of arbitration which shall be entered into conforming to this act, except that it shall be executed by employees individually instead of by a labor organization as their representative, shall, when duly acknowledged as herein provided, be transmitted to the chairman of the Interstate Commerce Commission, who shall cause a notice in writing to be served upon the arbitrators, fixing a time and place for a meeting of said board, which shall be within fifteen days from the execution of said agreement of arbitration: *Provided, however,* That the said chairman of the Interstate Commerce Commission shall decline to call a meeting of arbitrators under such agreement unless it be shown to his satisfaction that the employees signing the submission represent or include a majority of all employees in the service of the same employer and of the same grade and class, and that an award pursuant to said submission can justly be regarded as binding upon all such employees.

SEC. 7. During the pendency of arbitration under this act it shall not be lawful for the employer, party to such arbitration, to discharge the employees, parties thereto, except for inefficiency, violation of law, or neglect of duty; nor for the organization representing such employees to order, nor for the employees to unite in, aid, or abet, strikes against said employer; nor, during a period of three months after an award under such an arbitration, for such employer to discharge any such employees, except for the causes aforesaid, without giving thirty days' written notice of an intent so to discharge; nor for any of such employees, during a like period, to quit the service of said employer without just cause, without giving to said employer thirty days' written notice of an intent so to do; nor for such organization representing such employees to order, counsel, or advise otherwise. Any violation of this section shall subject the offending party to liability for damages: *Provided,* That nothing herein contained shall be construed to prevent any employer, party to such arbitration, from reducing the number of its or his employees whenever in its or his judgment business necessities require such reduction.

SEC. 8. In every incorporation under the provisions of chapter five

hundred and sixty-seven of the United States Statutes of eighteen hundred and eighty-five and eighteen hundred and eighty-six it must be provided in the articles of incorporation and in the constitution, rules, and by-laws that a member shall cease to be such by participating in or by instigating force or violence against persons or property during strikes, lockouts, or boycotts, or by seeking to prevent others from working through violence, threats, or intimidations. Members of such incorporations shall not be personally liable for the acts, debts, or obligations of the corporations, nor shall such corporations be liable for the acts of members or others in violation of law; and such corporations may appear by designated representatives before the board created by this act, or in any suits or proceedings for or against such corporations or their members in any of the Federal courts.

SEC. 9. Whenever receivers appointed by Federal courts are in the possession and control of railroads, the employees upon such railroads shall have the right to be heard in such courts upon all questions affecting the terms and conditions of their employment, through the officers and representatives of their associations, whether incorporated or unincorporated, and no reduction of wages shall be made by such receivers without the authority of the court therefor upon notice to such employees, said notice to be not less than twenty days before the hearing upon the receivers' petition or application, and to be posted upon all customary bulletin boards along or upon the railway operated by such receiver or receivers.

SEC. 11. Each member of said board of arbitration shall receive a compensation of ten dollars per day for the time he is actually employed, and his traveling and other necessary expenses; and a sum of money sufficient to pay the same, together with the traveling and other necessary and proper expenses of any conciliation or arbitration had hereunder, not to exceed ten thousand dollars in any one year, to be approved by the chairman of the Interstate Commerce Commission and audited by the proper accounting officers of the Treasury, is hereby appropriated for the fiscal years ending June thirtieth, eighteen hundred and ninety-eight, and June thirtieth, eighteen hundred and ninety-nine, out of any money in the Treasury not otherwise appropriated.

No arbitration has so far been had under this statute, nor has the statute itself been called in question in or construed by the courts.

EXECUTIVE AND JUDICIAL ACTION.

As to the second class of official action as made, viz, remedial action which may be taken by executive or judicial officials under authority of law, statute or common, the consideration of the same has inevitably been taken up to some extent in what has been already said. As an example of this, the action of boards of arbitrators in seeking to mediate may be mentioned.

ENFORCEMENT OF CRIMINAL LAW.

The enforcement of all law requires the action of officials, and wanting that, would remain a dead letter. To render effective any of the laws already discussed, action must be taken by State and Federal

authorities by arresting, indicting, and criminally prosecuting those offending against the provisions of the same, whether the particular offense be against the common or a statute law.

USE OF MILITARY FORCES.

Under the constitutions of the States the governor is the commander in chief of the military forces (militia), and under the laws he has the power to order the militia, or any part thereof, into active service in case of insurrection, invasion, tumult, riots, or breaches of the peace or imminent danger thereof. This action has frequently been taken in case of strikes, and although its object is to prevent or suppress violence threatened or happening to persons or property, its effect often is and must be to protect those working or desiring to work but interfered with by those threatening to use or using violence.

Section 4 of Article IV of the Constitution of the United States provides that the United States shall protect every State against domestic violence upon application of its legislature or of its executive (governor) when the legislature can not be convened. Under this section United States troops might be called into a State upon request of its authorities to protect employees in their work and the property of employers in cases of strikes accompanied with violence.

Sections 5298 and 5299 of the Revised Statutes of the United States provide that the President may, and it shall be his duty to, employ the land and naval forces of the United States whenever by reason of insurrection, domestic violence, unlawful obstructions, conspiracy, combinations, or assemblages of persons it becomes impracticable to enforce the laws of the United States by the ordinary course of judicial proceedings, and when the execution of the laws are so hindered by reason of such insurrection, etc., that any portion or class of the people are deprived thereby of any of the rights, privileges, immunities, or protection named in the Constitution and the laws. Under these sections when, in any State or States, the results of a strike or lockout or other labor trouble is to put Federal property in danger, to obstruct the carrying of the mails, to interfere with interstate commerce, or to prevent the enforcement of the decrees and mandates of the Federal courts, etc., it seems clear that the President has authority to use the military forces of the country to enforce the laws and protect the operation of affairs under the same. Such action has been taken in the case of the well-remembered "Chicago strike" of 1894.

In a case arising out of the above strike the United States Supreme Court, in enumerating the powers of the Federal Government to remove all obstructions to the conduct of interstate commerce or the passage of the mails, which removal would tend to the protection of workmen in their employment, used the following language: "Sum-

ming up our conclusions, we hold that the Government of the United States is one having jurisdiction over every foot of soil within its territory, and acting directly upon each citizen; that while it is a government of enumerated powers, it has within the limits of those powers all the attributes of sovereignty; that to it is committed power over interstate commerce and the transmission of the mail; that in the exercise of those powers it is competent for the nation to remove all obstructions upon highways, natural or artificial, to the passage of interstate commerce or the carrying of the mail; that if the emergency arises, the Army of the nation and all its militia are at the service of the nation to compel obedience to its laws; that while it may be competent for the Government to forcibly remove all such obstructions, it is equally within its competency to appeal to the civil courts for an inquiry and determination as to the existence and character of any alleged obstructions, and if such are found to exist, or threaten to occur, to invoke the powers of those courts to remove or restrain such obstructions; that the jurisdiction of courts to interfere in such matters by injunction is one recognized from ancient times and by indubitable authority; that the proceeding by injunction is of a civil character, and may be enforced by proceedings in contempt," etc.

INJUNCTION AND PUNISHMENT FOR CONTEMPT OF COURT.

. The latter part of the above leads naturally to the consideration of the action which may be taken by judicial authorities which tends to the protection of the workman in his employment, and which will be the last point considered in this article. It is a principle of our law that when there are interferences, actual or threatened, with property or with rights of a pecuniary nature, and the common or statute law offers no adequate remedy for the prevention of irreparable injury, then the jurisdiction of a court of equity arises, and it may interpose upon a proper presentation of the facts and issue its order or injunction as to what must or must not be done. This jurisdiction is not destroyed by the fact that such interferences may be accompanied by or may be themselves violations of criminal law.

Thus in the case of labor disturbances growing out of strikes, etc., many of the acts of the strikers and their sympathizers, designed to hinder or obstruct the conduct of business, may be contrary to law and criminal offenses, for which certain penalties are provided, or, if not criminal, yet their results may be so disastrous to the rights and interests of others that civil actions for damages against the perpetrators might be maintained. As a rule, however, neither the criminal prosecution of offenders nor the successful prosecution of damage suits provides an adequate remedy for loss and annoyance suffered. Something is needed to be done to stop at once the destruction of

property, the obstruction of business, and the loss of employment by those willing to work. The necessary remedy is found in an injunction or order issued by the court and directed against the offenders, commanding them to cease from all illegal practices which tend to prevent the conduct of business by the employer, and, consequently, the working of employees willing to work.

In a proper case such an order will be issued by the courts, and if it is disobeyed the parties so violating it may be committed for contempt of court and punished by fine or imprisonment, or both. Such measures for the indirect protection of employees have frequently been taken by the judicial authorities of the States and by the Federal courts.

An attempt has been made in the above to thoroughly cover the ground in enumerating the methods by which the legally constituted authorities of the country can act in order to protect the workman in his employment when his equitable and legal rights therein are attacked. The mention of some statutes or of some principles of the common law may have been omitted in this article which might apply in such cases. Circumstances vary so much in particular cases that it may happen occasionally that a law enacted for an entirely different purpose might be used to warrant the remedial action of a public official in a case of the kind considered herein, although perhaps never previously thought of in that connection. The above is believed, however, to be a fairly complete presentation of the methods by which the laboring man who is ready and willing to work may be protected in so doing against the adverse acts of others.

FOREIGN LABOR LAWS. (a)

BY W. F. WILLOUGHBY.

BELGIUM. (b)

The general history of labor legislation in Belgium can be briefly told. With the exception of measures for the protection of the lives and health of employees in industries which were classed as dangerous, unhealthy, or nuisances, and for the regulation of her councils of prudhommes, Belgium may almost be said to have had no legislation relating specially to labor prior to the year 1886.

On April 15 of that year the King created a royal commission for the purpose of making an exhaustive investigation concerning the conditions of labor and the desirability of special legislation. This commission reported during the course of the years 1886 and 1887 in four bulky volumes. Rarely, if ever, has a commission of investigation been productive of equally important results. As the direct result of this report and the recommendations contained in it, laws have been enacted which cover in a fairly comprehensive way the field of labor legislation. The power possessed by the King to promulgate decrees

^a In the preceding Bulletin (No. 25) the labor laws of Great Britain and France were considered. In the present Bulletin those of Belgium and Switzerland are shown. The labor legislation of Germany and Austria will be given in a subsequent Bulletin.

^b In the summary here given of the laws of Belgium use has in all cases been made of copies of the laws themselves. There is no compilation embracing all the laws considered. Those relating to factories and workshops, the payment of wages, shop regulations, etc., can best be consulted in—

Lois et règlements concernant le travail des femmes et des enfants, la police des établissements classés, le payement des salaires aux ouvriers, les règlements d'atelier et l'inspection du travail. Office du Travail, Belgique, 1898.

Revue du Travail. Published monthly since January, 1896, by the Office du Travail de Belgique, and containing all recent laws and decrees.

Annuaire de la législation du travail. 1^{re} année, 1897; 2^e année, 1898. Office du Travail, Belgique, 1898 and 1899.

In addition to these documents and copies of other laws, special use has been made of the following works:

Publications of the French Labor Bureau, notably the reports, *Conciliation et arbitrage en France et à l'étranger*, 1893, and *Hygiène et sécurité des travailleurs dans les ateliers industriels*, 1895.

Royal Commission on Labor, Great Britain. *Foreign Reports: Belgium*, 1893.

Conrad's *Handwörterbuch der Staatswissenschaften*, and the two supplemental volumes published in 1895 and 1897.

La législation protectrice en Belgique, par Louis Varlez. A report made to the Congrès International de Législation du Travail, à Bruxelles, 1897.

regulating conditions of labor in dangerous and unhealthy establishments was extended by a law so as to embrace all industries and even commercial establishments. The employment of women and children was regulated by another law and an important series of decrees issued in virtue of its provisions. The councils of prudhommes were reorganized by the enactment of a new organic law. An elaborate system of councils of industry and labor was created for the purpose of providing bodies through which both workingmen and employers might make known their wishes concerning labor matters, and by which labor difficulties might be avoided. Other laws have made the preparation and posting of shop regulations obligatory upon employers, have regulated the payment of wages to workingmen, have provided for the granting of the rights of civil personality to trade unions and for otherwise regulating these bodies, and have redetermined the law regarding strikes, picketing, and unlawful assembly. From the position of a country with but little legislation regarding labor, Belgium has thus within the past few years changed to one possessing laws in relation to most of the points embraced in the modern labor code.

RIGHT OF ASSOCIATION: TRADE UNIONS.

Guilds in Belgium were abolished by the decree of 17 Brumaire An IV (November 8, 1795). The present constitution of Belgium was adopted in 1831. Article 20 of this instrument provides that "Belgians shall have the right of forming associations, and this right shall not be limited by any preventive measures."

Under this provision citizens of Belgium have full freedom to form such organizations as they desire. While the right of union can not be limited, laws have been enacted for the purpose of conferring upon organizations certain privileges, such as the right of civil personality, or subjecting them to a certain amount of administrative control, such as the requirement of public reports. Special laws have thus been enacted in reference to trade associations, mutual-aid societies, and trade unions or labor organizations. It is of the latter alone that account need here be taken.

In 1886 the labor commission previously referred to drew up a bill for the purpose of conferring upon labor organizations the right of civil personality. The first step in this direction in Parliament was not taken until 1889, when the minister of justice introduced a measure having this purpose in view. Nothing came of this measure. In 1894 a new bill, differing in a number of essential points from that of 1889, was introduced by the minister of justice. This bill, after undergoing some modifications in the course of its consideration by Parliament, was finally enacted as the law of March 31, 1898. This law must necessarily exert a decided influence upon the development of labor organizations in the country. While its main purpose is to

permit trade unions to enjoy the rights of civil persons, it nevertheless relates to a good many other points. That it should do so was unavoidable, because it was necessary to determine the character that organizations of laborers should have in order to enjoy the right of civil personality, and the conditions under which that privilege will be conferred. In the summary of its provisions that follows it should be remembered that the law is not compulsory. Trade unions are free to take advantage of its provisions or not, just as they see fit.

"A trade union (*union professionnelle*)," as defined by the law, "is an association formed by persons following, in industry, commerce, agriculture, or the liberal professions, for the purpose of gain, either the same or similar professions (*professions*) or the same or similar trades (*métiers*) which cooperate in the production of the same products, having as its exclusive object the study, protection, and development of their trade interests."

Any organization comprehended in the above definition may enjoy the rights of civil persons within the limits and under the conditions set forth in the law. These limitations and conditions relate to the membership of unions, the lines of activity open to them, the general character of their constitutions and the recording of the latter with the proper administrative authority, the filing of annual reports and statements, the amount and kind of real estate that may be held, the manner of dissolving the unions, etc. The law thus determines in great detail the character that an organization must have, the general manner in which it must be administered, and what kind of work it can undertake and still profit by the provisions of the law.

A union must embrace at least seven effective members. Minors 16 years of age or over and married women may be members if the father, guardian, or husband does not oppose. When such opposition is offered, the minor or married woman may take the matter before a justice of the peace, who, after hearing the parties, will make a final decision. Minors, however, are only entitled to a deliberative voice. Honorary members, not to exceed one-quarter of the number of effective members, may be admitted even when they do not follow the trade to which the union relates. Persons who are excluded from taking part in the administration of a union and liquor dealers, unless they have followed the profession or trade during at least four years, may not be admitted as honorary members.

The provisions regarding the kinds of work in which unions can or can not engage are of especial importance. Generally, unions can not themselves follow a trade or profession. They may, however, (1) make contracts, purchases, and sales of materials required in connection with their apprenticeship shops; (2) purchase, for the purpose of reselling to their members, raw materials, seed grain, fertilizers, animals, machines and other instruments, and generally all objects

required by their members for the exercise of their trade; (3) purchase the products of their members for the purpose of reselling them; (4) conduct commission operations in reference to (2) and (3), and (5) purchase animals, machines, and other articles to be definitely retained by the unions, but to be placed at the disposition of the members with a view to their use in the pursuit of their trade.

In no case is a union permitted to make any profit by these transactions. The union may thus act in behalf of its members, but can not itself engage in business. When such operations are undertaken, a separate account, distinct from the other acts of the union, must be kept. A union may own and record trade-marks (*marques de fabrique ou de commerce*). It may permit their use by the members, but can realize no profit in that way.

Each union may frame its own constitution. This document, however, must contain the name of the union, the address of its headquarters, the object for which it is formed, the conditions upon which members are admitted or can leave the union, the manner in which the union is governed or its property managed, the terms of office of persons charged with the government of the union, the manner in which the funds will be invested, the method of regulating accounts, the procedure to be followed in case of a revision of the constitution or a dissolution of the union, the means by which the regulations of the union will be enforced, and an agreement to attempt the settlement of labor difficulties by means of conciliation or arbitration. There must be attached to the constitution a list of the persons who participate in any way in the administration of the affairs of the union or the management of its property, with a statement of their nationality, ages, residences, occupations, and whether active or honorary members, and a declaration signed by the directors, attesting that the union has been formed, as far as relates to its members, in conformity with the provisions of the law which define unions and specify the lines of work in which they may engage.

But little attempt is made by the law to declare how the foregoing provisions shall be framed. The only limitations upon the freedom of the unions in this respect are as follows: A member must always be given the right to resign from a union at any time, and when he does so he shall be required to pay only accrued and current dues. The government of a union can only be intrusted to Belgians or foreigners authorized to take up their residence within the Kingdom and actually residing there. Officers must be chosen by the union itself from among its adult members, and three-fourths at least must be selected from among the active members. Women may participate in the administration. The following persons can not be made officers or managers: Those who have been deprived by the law of June 23, 1894, of the right to be administrators of recognized mutual aid societies, and those

who directly, or indirectly through an agent, keep a place for the sale of spirituous liquors, unless the union is one formed among liquor sellers.

The term of office for officers can not exceed four years, and their appointment must always be revocable by the general assembly.

Unions are prohibited from investing their funds in shares of commercial companies.

The dissolution of a union or the modification of its constitution can only be determined upon by a majority vote, consisting of at least three-fourths of the members present at a general assembly specially summoned for that purpose, and composed of at least one-half of the members entitled to vote. No union can, for the purpose of enforcing its regulations, make provisions which affect injuriously the rights of persons who do not belong to it. In no case can such regulations be made the subject of a civil action.

An important feature of the law is that whereby a system of registration of labor unions, corresponding somewhat to that of Great Britain, is created. The records office (*greffe*) of the council of mines is made the registration bureau, and in it must be filed copies of the constitution and their appendixes of the unions. The law further provides that the council of mines shall designate three of its members to sit as a commission for the registration of trade unions in order to see that the conditions presented by the present law are complied with. This commission was formally constituted by the royal decree of June 30, 1898, which also determines the formalities to be followed in the registration of unions.

Every trade union which desires to possess the right of civil personality must make a formal application to the council of mines. This request must be signed by one or more of the officers of the union and be accompanied by two copies of the constitution, with its appendixes. All requests received will be acknowledged and entered upon a special register. Action upon a request must not be taken until the matter has been investigated and reported upon in writing by one of the members of the registration commission. The persons making the request may take a copy of this report if they so desire. The commission when it is judged proper may question any of the parties, and the latter have the right to be heard, or may file a written brief.

The commission must render its decision within three months from the filing of the constitution. It may, however, extend this time by notifying the union of the reasons for so doing. The decision, accompanied by the grounds upon which it is rendered, must be transmitted to the union within fifteen days after it is rendered. When favorable action is taken upon the request, the union will be declared registered, and the constitution and the appendixes will be published in the official journal (*Moniteur*) within the next fifteen days. This publication will

be in the form of appendixes, copies of which must be sent to the registrars of the courts of appeal, the lower courts, tribunals of commerce, justices of the peace, and councils of prudhommes, where they can be freely consulted and copied.

The union will enter upon the enjoyment of its rights as a civil person the tenth day after the publication of its constitution. All the appendixes giving the constitutions as above described must be assembled in a special collection.

Notice of the modification of the constitution of a union or the voluntary dissolution of the latter must be given to the council of mines in the same way as an original request for registration, and will be acted upon in the same way. Notice of any change in the officers or managers of a union must also be given, and must be duly approved by the commission.

Following the British system, provision is also made for the filing of annual reports by the unions. Before March 1 of each year each registered union must file with the commission of registration the following documents: (1) A statement of its receipts and expenditures down to and including December 31 preceding, and, when required, an account of its operations in respect to the purchase and sale of articles produced or consumed by its members, etc., as described above. These accounts must be made according to the forms prescribed by the Government. Before being filed by the union they must be submitted for approval to the general assembly, after having been during fifteen days open to the inspection of the members at the union's headquarters. They will only be made public when the union gives its consent. (2) A list of officers, their addresses, etc., and a declaration similar to that which must be attached to the constitution when registration is requested.

The royal decree of June 30, 1898, creating the registration commission, provides that the council of mines must transmit to the labor bureau (*office du travail*) the annual reports that are filed with it, in order that that bureau may prepare statistics of trade unions in the Kingdom. The council must also make an annual report concerning the execution of the law governing trade unions to the minister of industry and labor. Provision is thus made for the regular publication of information concerning trade unions.

Each union must keep on file at its headquarters a list of all its members where any member can consult it. This list must show, for each person, his name, surname, date of birth, occupation, address, and whether he is an active or honorary member.

A duly registered union may appear in court, either as complainant or defendant, for the defense of the individual rights of its members as such, without prejudice to the right these members have to act directly or to join together in an action. It shall especially have such

powers in respect to the execution of contracts entered into by the union in behalf of its members, and to actions for damages resulting from the nonexecution of these contracts. When there are no special provisions to the contrary in the constitution, a union will be represented in all judicial actions by its directors, or that particular one of them who has been specially delegated by the general assembly to serve in that capacity.

All acts or documents of any kind emanating from a union must make mention of the fact that it is a registered union.

The right of unions to own real estate, receive gifts, etc., is limited in the following manner: A union may own only those lands or buildings which are necessary for its meetings, offices, trade schools, libraries, collections, laboratories, experiment grounds, shelter for animals, machines, and instruments, employment bureaus, labor exchanges, apprenticeship shops, lodges, and hospitals. A royal decree can, however, permit a union to own real estate which is intended for ultimate use in one of the foregoing ways, even though it can not be immediately devoted to that purpose.

Gifts or bequests for the benefit of a union will only take effect after their receipt has been authorized in accordance with the communal law. The order which authorizes the acceptance by a union of a gift in which real estate is included must fix, when necessary, the time within which the real estate must be disposed of. The donor may stipulate for his own use, or for the benefit of his heirs or representatives, the right to receive from the union a sum equal to the value of the goods given, in case the union is dissolved. This sum must be determined by the parties interested before the demand for the permission to accept the gift is made. In case the gift consists of real estate that must be disposed of, the sum to be returned if occasion arises will be that realized at its sale.

The dissolution of a union may be ordered by the courts upon the request of the public minister, or any interested party, when it fails to comply with the provisions of the law regarding the lines of action open to it or the composition of its membership, when its property is used for a purpose other than that for which the union was formed, or when the government of the union is not organized in conformity with the provisions of this law.

Before action is taken the union must be notified to comply with the law. This notification will be by way of publication in the appendixes of the official journal (*Moniteur*). Not more than three months after this publication can be allowed the union in which to conform to the law. The matter will be decided summarily, and the order declaring the dissolution must appoint one or more persons to act as receivers, unless provision for such is made by the constitution. A copy of the judgment or order must be deposited by the public minister in the

office of records of the registration commission, in order that it may be published within fifteen days, as is required by law in respect to constitutions.

After an order of dissolution a trade union is considered to exist only for the purpose of winding up its affairs. Every paper emanating from such a union must mention that it is in the process of liquidation. After the payment of all debts the property of the union must be disposed of as follows: The amount of gifts and legacies must be returned to the donors or their heirs or representatives when such action has been stipulated and steps for its return have been taken within the year following the publication of the act of dissolution. The net assets remaining must be devoted to work similar to that of the union, as designated by the constitution or a decision of the general assembly. This designation will be effective only if the disposition of the property is recognized by the registration commission as conforming to the law. When the application of assets has not been regulated, or has been regulated contrary to law, the property will be taken by the Government in order that it may be devoted to the advancement of trade instruction.

Provision is made by this law for the granting of civil personality to federations of unions as well as individual unions. The sections relating to this subject provide that federations of trade unions, composed of persons exercising the same or similar professions or trades, or trades which cooperate in the production of the same articles, may be granted the right of civil personality under the same conditions as individual unions. Federated unions must always have the right to retire from the federation upon giving three months' notice of their intention to do so.

Fines of from 26 to 500 francs (\$5.02 to \$96.50) will be imposed upon anyone who knowingly makes a false declaration relative to the constitution or the conditions prescribed for admission of members or in regard to statements and reports that must be filed with the Government, or who, after the dissolution of a union has been decreed, participates in the management of such union except for the purpose of winding up its affairs. Article 85 of the Penal Code applies to the enforcement of these penalties.

An annual tax of 4 per cent of the revenue from the real estate belonging to unions must be paid to the State. This tax will be collected in the same manner as the regular real-estate taxes.

THE LABOR CONTRACT.

Article 1780 of the Civil Code provides that "the services of a person shall be engaged only for a certain time or a determined work." With this exception there is no legislation relating specially to labor contracts. Within the past few years a great deal of attention has been

paid to this subject, and a bill has been formulated which regulates in great detail the making and terminating of labor contracts. This bill has passed the Chamber of Deputies and is now before the Senate.

Prior to 1883 the possession of pass or labor books was obligatory upon all workingmen. This obligation, however, was repealed by the law of July 10, 1883.

APPRENTICESHIP.

No laws have been enacted in relation to apprenticeship. There are certain laws relating to industrial or trade schools, but their examination falls without the scope of the present paper.

PREVENTION OF ACCIDENTS AND PROTECTION OF HEALTH OF EMPLOYEES.

It is doubtful if there exist in any other country more elaborate or more rigid regulations concerning the hygienic condition and safety of industrial establishments than are found in Belgium. For this reason the subject will be treated with considerable fullness.

In Belgium, while regulations in relation to such questions as the employment of women and children, hours of labor, Sunday work, and night work can only be imposed by laws duly enacted by the legislature, the central administrative authorities, through the King, have full power to promulgate such measures as are deemed desirable for the regulation of work in establishments classed as dangerous, unhealthy, or nuisances (*établissements dangereux, insalubres ou incommodes*).

As the King has at the same time the power to determine the establishments that shall be classed in that category, and as almost all the important branches of industrial work have been so designated, the King thus, in reality, has the power of determining, by royal decree, what measures shall be taken in industrial establishments generally for the prevention of accidents and the protection of the health of employees. As these decrees have the full force of laws, they will here be considered as such.

The power possessed by the King, as above described, is in virtue of the decree of December 22, 1789, and the law of May 21, 1819. In accordance with the power thus conferred upon him, the King promulgated, January 31, 1824, a decree for the regulation of certain specified classes of industry, though decrees regulating dangerous industries had been issued prior to that date. This decree was replaced by another one issued November 12, 1849. The decree of 1824 related only to the measures that should be taken to protect the lives, health, and convenience of the neighbors of the establishments regulated. It was thus largely a measure relating to the public health and police administration. The decree of 1849 introduced for the first time measures in the interests of the employees within the establishments.

✓ The general principle upon which the scheme of regulation provided for by these decrees was based was that no establishment included in the list of industries regulated could begin operations until it had received an express authorization to do so from the proper authorities, and this authorization was not granted unless all the conditions prescribed regarding the precautions to be taken in reference to hygienic conditions and safety had been complied with.

In virtue of the decree of 1849 and of the general instructions relating to it dated September 27, 1850, and March 5, 1851, the permanent deputations of the provincial councils and the boards of aldermen (*collèges des bourgmestre et échevins*) issued orders of authorization and prescribed in them the conditions that should be observed in each case.

The decree of 1849 was replaced by a royal decree issued January 29, 1863, the purpose of which was, on the one hand, to give to the provincial authorities greater power of authorizing the operation of establishments which formerly could only be authorized by the central government, and, on the other hand, to provide that these authorizations should be subordinate to the reservations and conditions which were judged necessary in the interest of the safety, health, and convenience of the public and of the employees.

The royal decree of January 29, 1863, still remains the fundamental law regulating the conditions that must be observed before the operation of an establishment classed as dangerous, unhealthy, or a nuisance, which, as has been said, means an industrial establishment of almost any kind, can be authorized. Its provisions, however, have been supplemented by a number of other important decrees. Chief among them are the royal decrees of December 27, 1886, and September 21, 1894. The first was promulgated in order to put into effect the recommendations of the labor commission of 1886, and its purpose was to render more effective the measures prescribed by the authorities in reference to the hygienic condition of the interiors of factories and workshops. The purpose of the second, as expressed by the ministerial circular accompanying it, was to complete the decree of 1863 in codifying in a general regulation the scattered provisions, which until then had been contained in the individual decrees of authorization.

Mention should also be made of the following decrees: (1) The royal decree of May 31, 1887, modifying the formalities and method of procedure necessary for the authorization of certain classes of industries; (2) the royal decree of May 31, 1887, making a new classification of industries designated as dangerous, unhealthy, or nuisances, and (3) the royal decree of March 27, 1891, concerning establishments which are created or operated by the State. Finally, there should be noted the law of May 5, 1888, and the royal decree of October 22, 1895, in relation to the organization of a service for the inspection of establishments classed as dangerous, unhealthy, or nuisances.

The scheme of regulation provided by these various decrees is based upon a classification of all industrial establishments which in any way present elements of danger to the lives or health of employees or the general public into groups according to whether the authorization for their operation should be granted by the provincial or the local authorities, and according to the degree of danger presented.

The decree of January 29, 1863, provided for only two classes of establishments, the principle of division being according to the authority whose duty it was to grant the authorization for operation. The first class includes those whose authorization is granted by the permanent deputations of the provincial councils after the boards of aldermen have been given an opportunity to express their opinion. The second class is composed of those whose authorization is granted directly by the boards of aldermen. When projected establishments include several kinds of operations belonging to both classes, the decision belongs exclusively to the permanent deputations of the provincial councils.

This classification has been maintained in subsequent decrees, but has been elaborated to some extent by the creation of subgroups. This was accomplished by the decree of December 27, 1886, which provided that two special groups should be formed of those establishments presenting, respectively, unusual and very slight dangers or inconveniences to the public, in order that they might be subjected to a special and in general a simpler scheme of authorization. This change was carried out by the two decrees of May 31, 1887. The one makes provision for the special system of authorization and the other replaces the old list of establishments which are dangerous, unhealthy, or nuisances, as given in the decree of 1863, by a new one in which the changes necessitated by the formation of the new groups as well as other modifications are indicated. This revised list is the one now in force, the only changes that it has suffered being in respect to particular industries introduced by special decrees.

The most important feature of the whole scheme for the regulation of dangerous and unhealthy industries is that providing that no establishment embraced within that classification can be opened for operation or transferred from one place to another except in virtue of a special authorization from the Government.

In all cases where a person desires to open an establishment comprehended in the list of industries designated as dangerous, unhealthy, or nuisances, a formal request must be addressed to the proper administrative authorities. This request must state the nature of the establishment it is proposed to create, its object, the apparatus and methods of operation that will be employed, and the approximate quantity of products that will be manufactured or stored. It must also indicate the measures proposed to be taken for preventing or lessening any feature in the nature of a nuisance to which the establishment may

give rise, as regards the employees of the establishment, the neighbors, or the public.

Every request for permission to open an establishment of the first class must be accompanied by two copies each of two plans, indicating, the one the arrangement of the establishment, the workshops, warehouses, apparatus, etc., and the other the situation of the establishment in respect to the buildings, cultivated land, means of communication, water courses, etc., comprised within a radius of 200 meters (656 feet) for certain designated establishments and of 100 meters (328 feet) for others. These plans must be prepared, the first on a scale of 5 millimeters (about $\frac{1}{4}$ inch) per meter (3.28 feet) or less; the second on the scale of the registered survey of the locality in which the establishment is situated.

To these requirements contained in the decree of 1863 the royal decree of December 27, 1886, made the following additions: Every request for the authorization of an establishment of the first class must, independently of the information and documents required by the decree of 1863, be accompanied by a notice drawn up in conformity with a model annexed to the decree of 1886, making known the measures proposed to be taken in the interest of the employees for the purpose of preventing or lessening the dangers or inconveniences to which the establishment may give rise.

The model here referred to calls for the following information: The number of employees, their ages and sex; the hours of labor and intervals of rest per day and per week; for each of the four classes of men, women, boys under 16 years of age, and girls under 16 years of age, and for day and night workers separately, the number employed, their hours of commencing and ending work, and the total duration of the intervals of rest allowed them; the manner of heating, lighting, and ventilating the establishment; the care taken to insure cleanliness in the establishment and on the part of the employees; the cubic air space per employee; the provision for pharmaceutical and medical attendance in cases of accidents; the means taken to insure hygienic conditions inside the workrooms, such as the provision of baths, toilet rooms, water-closets, disinfectants, etc.; and the precautions taken to protect employees against the dangers of fire, explosions, formation of injurious gases, dust, or vapors, and injuries from machinery and means of transmitting power.

Each decree of authorization must be supported by a special report made by an official or a competent technical committee concerning the adequacy of these provisions; and the decree must make known in an express and special manner the conditions prescribed in virtue of this report. The officers or technical committees whose assistance can be demanded for the purpose of making this report are (1) the superior council of public hygiene; (2) the inspectors of dangerous and unhealthy

establishments and the inspectors of hygiene attached to the ministry of the interior and public instruction; (3) the officials for the general inspection of local (*vicinaux*) roads and unnavigable streams; (4) the provincial medical commissions, the local public-health committees, and corresponding members; (5) officials of the technical services of the provinces; (6) mine officers, within certain conditions set forth in a decree issued September 4, 1882, and (7) engineers of roads and bridges within certain limits.

The decree also provides that all establishments already authorized must within a year from the date of the decree send to the minister of the interior and public instruction a notice setting forth the same information as above described concerning measures taken in the interest of the employees, and that the competent authorities shall then have the right to impose such additional precautionary measures as may be judged necessary for the protection of the employees.

A new decree of authorization is required if the establishment does not begin operations within the time fixed by the first authorization, if it remains shut down during 2 consecutive years, or if it has been destroyed or temporarily prevented from operating on account of an accident resulting from its operation.

If a means of communication, a water course, or an establishment of any kind belonging to a public administration is situated within a radius of 200 meters (656 feet) in certain designated cases, or 100 meters (328 feet) in other cases, of an establishment for which a request for authorization is made, the administration having charge of such means of communication, water course, or establishment must be immediately informed of the object of the request. A notice indicating the object of the request must be posted by the board of aldermen during 15 days at the headquarters of the proposed establishment and in the communes on whose territory the line drawn by the radius above described would extend. The request for an authorization and the plans must also be deposited at the communal hall, dating from the day the notice is posted.

At the expiration of the 15 days a member of the board of aldermen, or a police commissioner delegated for that purpose, must collect written opinions concerning the advisability of granting the authorization requested, and institute in the commune where the establishment is located an investigation, at which all persons interested in the matter shall, if they desire it, be given an opportunity to be heard. A report of this investigation must be made. The persons requesting authorizations shall always be entitled to receive, upon their request, information concerning the reasons upon which the protests formulated in this investigation are based.

The decree of authorization must in all cases make such conditions as are judged necessary in the interest of the public health, safety, or

convenience, as well as in the interest of the employees of the establishment. It must fix the period within which the operation of the establishment must be begun. Authorizations for establishments of the first class can only be granted for a term of not more than 30 years, but can be renewed at the expiration of that time.

The decisions according or refusing authorizations must be immediately posted by the communal authorities in the communes which are interested, and when necessary be brought to the attention of any public administration that may be interested.

An appeal from the decision of the communal authorities may be made by any interested party to the permanent deputation of the provincial council. Appeals from the action of the provincial authorities will be regulated by special decrees. In all cases the appeal must be made within ten days from the posting of the decision. Notice of appeals must be immediately given by the administrative authorities to all persons interested. The decisions rendered upon an appeal, either by the permanent deputation for establishments of the second class or by the central government for establishments of the first class, must bear the recommendation of the officer or technical committee to whom the matter was submitted for report.

The authority whose duty it is to grant the authorization, either in the first instance or upon last appeal, must give its decision within three months from the time the affair is brought before it. In case it is impossible to arrive at a decision within that time a decree giving the reasons must be issued fixing the new time within which action will be taken. Notice of this decree must be immediately given to all parties interested.

Reference has been made to the creation of a special class of industries, to include those in which danger or inconvenience to the employees or the general public was very slight. For these a simpler and more expeditious system of securing authorizations to begin operations is provided by the royal decree of May 31, 1887. The method of procedure is as follows:

The request for an authorization must be addressed to the local authorities upon stamped paper. It must make known the location and conditions of installation of the proposed establishment. Within eight days following the receipt of this request the communal authorities must notify in writing at his residence each proprietor or tenant individually of a building situated less than 50 meters (164 feet) from the proposed establishment, and any public administration interested in any water course or other work within that district. It must also post up during fifteen days a notice showing the object of the authorization requested.

All protests that the request may give rise to which are deposited at the communal hall must be collected by a member of the board of

aldermen or a police commissioner. A report must be made containing a statement of all the verbal protests, signed by the persons making the protest, and all written protests must be annexed to this statement. If at the expiration of the fifteen days during which the notice must be posted no protest is made, the local authorities must grant the authorization within the ten days following. The decree of authorization must contain a statement of the precautions that are considered necessary by the local authorities for the protection of the public health, safety, and convenience. A copy of the decree must be sent to the governor of the province in which the establishment is situated.

When protests are made, either by neighbors, or by the person making the request on account of the precautions that are prescribed, they will be passed upon by the board of aldermen in the first instance and by the permanent deputations upon appeal.

The foregoing provisions all relate to the division of industrial establishments into certain classes, and the conditions under, and methods by, which establishments in each class may be authorized. From the standpoint of the protection of labor the most important feature of the regulation of industrial establishments is that setting forth the particular measures that must be taken inside the establishments for their protection. In the early decrees it was provided that these conditions should be stated for each establishment in the decree authorizing its operation. For the purpose of making these conditions more uniform and definite, it was finally decided that a general decree should be issued applicable to all establishments, giving the most important conditions that must be observed. This was done by the royal decree of September 21, 1894. The importance of this decree, constituting as it does the general code for the protection of the lives and health of employees in industrial establishments, warrants its translation in full. It should be remembered, however, that special conditions can be imposed by the particular decree of authorization. The following is a translation of the decree:

1. The following provisions, the purpose of which is to insure that work places shall be maintained in a hygienic condition, and that employees shall be protected against accidents, must henceforth be observed in establishments which are unhealthy, dangerous, or nuisances.

2. Work places must be maintained in a satisfactory condition as regards cleanliness. The whitewashing and painting of the walls must be regularly attended to.

3. In places where use is made of organic materials capable of producing liquids which, by their decomposition, will give rise to the formation of injurious or annoying gas or vapors, the floors must be smooth, impermeable, and so constructed that the liquids can flow off, and the walls must be cemented for a height of at least 1 meter (3.28 feet) from the floor. The floor and bottom of the walls must be

washed at least twice a year, use being made of a disinfecting solution, the choice of which will be indicated by the authority by whom the authorization to conduct the business is granted. Decaying residue matter must never be permitted to remain in places where persons are at work. It must be removed as it is formed and immediately disinfected.

4. The atmosphere of work places must be kept continuously protected from emanations from sewers, ditches, manure piles, privies, or any other source of infection. Excreta must not be deposited in wells.

5. There must be at least one privy for each twenty-five persons employed, and these privies must not communicate directly with the workrooms.

6. In inclosed places where work is prosecuted, there must be not less than 10 cubic meters (353 cubic feet) of air space per person employed. These places must be properly ventilated and aired. The air must be renewed at the rate of at least 30 cubic meters (1,059 cubic feet) per hour per person. This minimum must not be less than 60 cubic meters (2,119 cubic feet) in places which are especially unhealthy. The openings through which the fresh air enters or the vitiated air leaves must be so located as not to incommode the workingmen and be beyond their reach.

7. Hoods with draft chimneys opening close to the floor must be provided to remove, as quickly and as directly as possible, gases, powders, vapors, and fumes. When this provision is insufficient to remove them from the workingmen, the apparatus for work must be incased as far as possible and a depression of air created inside in order to bring about active ventilation.

8. The work places must be vacated by the employees as far as possible during interruptions of work. The workingmen must not take their meals in any place used for the manipulation of poisonous substances.

9. Employers are required to furnish their employees with water of a good quality or a hygienic drink (*tisane hygiénique*).

10. When motors are installed in places in which work is not carried on, access to such places must be prohibited to all persons whose presence there is not required for the needs of the service. In all cases the pits for fly wheels and pulleys, as well as the parts of motors which are in motion, must be inclosed by guards or protective devices of such a character as to protect the employees as far as possible from accidents. Gas and petroleum motors must be started by means which do not require the workingmen to take hold of the arms of the fly wheel. (a)

11. Precautions, as required by circumstances, must be taken in respect to the means of transmitting power and pieces of machinery moving backward and forward (*pièces saillantes*) or otherwise when they can occasion accidents. (a)

12. Machine tools having a rapid motion must be provided with appliances by which they can be stopped in the shortest possible time, without stopping the motor.

13. Machine tools for cutting, which go at a rapid speed, such as machines for splitting, cutting, planing, sawing, beading, or other

a As modified by the royal decree of April 18, 1898.

similar operations, must be so installed that the employees can not from the places where they work involuntarily touch the cutting edges.

14. No person must be habitually employed where he has access to a fly wheel or any other engine moving with great rapidity.

15. The workmen must be protected against injury from particles thrown off from material upon which work is being performed.

16. Passages by which employees move about in work places must be of a height and width sufficient to protect the workmen from being injured by the machinery in motion.

17. Lifts, hoists, elevators, cranes, and similar apparatus must have indicated upon them their power expressed in kilograms, and, if they are made use of by persons, the number of persons that they can transport without danger at the same time.

18. The lifts, hoists, and elevators must be so installed and guided that nothing can fall in them. The openings in the floors through which they pass must be inclosed by a fence, one side of which must wholly or in part consist of a moving gate opening outwardly and shutting automatically.

19. Wells, cisterns, basins, or reservoirs of corrosive or burning liquids must be provided with lids or gates or fencing.

20. Measures must be taken to protect the workmen in case of fire.

21. The lighting of the work places must be sufficient to enable the workmen to distinguish the machines or moving parts with which they can come in contact. When petroleum is used for lighting the work places, measures must be taken to prevent the fall or explosion of the lamps. The use of petroleum is prohibited in portable lamps called "*crassets*" and in all other dangerous apparatus. The apparatus for lighting by gas must be carefully maintained and inspected. When the lighting or transmission of power is accomplished by means of electricity, precautionary measures must be taken to protect the workmen from the dangers presented by high-tension currents. (a)

22. Every accident causing the death of a workman or occasioning an injury capable of causing an incapacity for work for 8 days must be reported to the proper inspector by the employer or his agent within 48 hours. The declaration of the employer must contain the names and addresses of witnesses of the accident. In all cases where death has resulted the proper inspector must make an investigation of the causes of the accident. A ministerial decree will determine the other cases when the same investigation must be made.

23. The provisions of the present decree are only executory in so far as they are not contrary to the provisions of previous decrees of authorization.

24. The permanent deputations must, on the request of the interested parties, and upon the advice of the proper inspectors, authorize for cause exemptions to the present decrees as far as concerns either establishments now in operation or those authorized in the future.

25. Infractions of the provisions of the present regulations, as well as the provisions of the special decrees, will be punished by fines in accordance with the law of May 5, 1888, relative to the inspection of establishments which are dangerous, unhealthy, or nuisances.

The present decree will enter into force January 1, 1895.

a As modified by the royal decree of February 21, 1898.

SPECIAL INDUSTRIES.—In addition to the foregoing general regulations, a number of special decrees have been issued for the purpose of subjecting to a special régime of regulation certain industries which present unusual dangers to the lives and health of their employees. Such special decrees now in force are those in relation to the manufacture of chemical or white phosphorus matches, the manufacture of white lead and other lead compounds, and the manipulation of rags.

In 1880 the superior council of public hygiene proposed that the use of ordinary phosphorus in the manufacture of matches should be prohibited. It was not, however, until 10 years later that the Government took action, and then it was unwilling to go to the extent of prohibiting the use of ordinary phosphorus as recommended by the council of public health. By a royal decree issued March 25, 1890, it, instead, subjected the industry of matchmaking to such conditions as were thought to be adequate for the protection of employees. Results not fully justifying expectations, important additional conditions were imposed by a royal decree issued February 12, 1895. Following are the essential features of the scheme of regulation provided by these two decrees:

In all factories where matches are made by the use of white phosphorus each of the operations of making the paste and drying the dipped matches must take place in premises specially devoted to those operations. The preparation of the ordinary phosphorus paste must be effected in an apparatus hermetically closed, or if not, surmounted by a hood communicating with a chimney with a strong draft.

It is forbidden to introduce into the paste an amount of ordinary phosphorus exceeding 8 per cent of the total matter exclusive of water. Ascending shafts communicating with a mechanical ventilator must be placed on a level with the tables for dipping matches and vessels containing the paste. Drying rooms to which the employees have access must be mechanically ventilated. The quantity of air necessary for this ventilation will be fixed in each particular case by the permanent deputation upon the advice of the central service for the inspection of labor and the supervision of establishments which are dangerous, unhealthy, or nuisances.

All places in which phosphorus fumes can be generated must be spacious and thoroughly ventilated. This ventilation must preferably be established by air inlets opening on a level with the work tables or the floor and communicating with the flues in connection with the main chimney of the factory. These places must be maintained in a condition of absolute cleanliness. Drinking or eating there is prohibited.

In every phosphorus match factory the employees must be furnished with special garments and a place provided with vessels of water and soap, so that they can change their clothes on beginning and leaving work and wash their hands and faces upon leaving the establishment. The maintenance of cleanliness is absolutely obligatory upon all workmen having to do with phosphorus, or phosphorus paste, or matches and striking boxes treated with this paste.

No person must be permitted to work in shops where use is made

of phosphorus, or phosphorus paste, or matches and striking boxes treated with this paste, unless he is furnished with a medical certificate stating that he is not suffering from phosphorus necrosis and that he does not appear to be predisposed to that disease. Employees in these shops must be medically examined each month at the expense of the employer. They must be immediately excluded from the shops as soon as it is known that they do not satisfy all of the conditions requisite for their admission. The medical observations must be entered upon a register kept for this purpose.

Any additional measures in respect to the various factory operations that may be necessary in order to combat the chronic toxic effect of phosphorus, as well as measures for preventing fires and explosions, or other accidents to which the operation of the factories may give rise, will be prescribed by special decrees.

In addition to the foregoing restrictions upon manufacturers of phosphorus matches it was necessary to impose equivalent conditions upon proprietors of depots and warehouses for the storing of matches, in order that foreign manufacturers would not possess an unfair advantage over domestic manufacturers. The royal decree therefore provides that "all proprietors of depots and warehouses containing phosphorus matches subject to the régime of dangerous and unhealthy establishments shall be prohibited from having in those places white phosphorus matches made with paste containing more than 8 per cent of phosphorus."

Infractions of these regulations are punished according to the law of May 5, 1888, in respect to the inspection of dangerous and unhealthy industries.

Exemptions from these provisions can be granted by the permanent deputations upon the advice of the central service for the inspection of factories and the supervision of dangerous and unhealthy establishments.

On April 18 and July 8, 1898, royal decrees were issued determining the methods that must be employed by the inspectors in ascertaining the proportion of phosphorus in the paste employed in match factories or on matches stored in warehouses. The provisions, being entirely technical, need not be reproduced.

Establishments for the manufacture of lead compounds had been included among dangerous industries as early as 1810 (*a*) and as such had been subjected to the general regulations regarding that class of establishments. In the investigation made by the labor commission of 1886 considerable testimony was given regarding maladies to which workers in lead factories were exposed. A special investigation of the subject was consequently ordered by the King, the result of which led to the preparation and promulgation of the royal decree of December 31, 1894, by which the manufacture of lead compounds was subjected to a special régime of regulation.

The provisions of this order can be classed in two categories, viz, those which have for their object the prevention of the formation, or at least diffusion, of lead powder in the workrooms, and those of a general character regarding the cleanliness of the establishment, and the conveniences that must be placed at the disposal of the employees.

The provisions comprising the first class are exceedingly technical in character and regulate in detail the precautions that must be taken during each stage of the process. A separate set of rules is formulated for the manufacture of white lead, lead oxides (massicot, litharge, and minium), and lead chromate and colors containing lead chromate.

The rules (a) regulating the manufacture of white lead are as follows:

The lead must be cast in a special room devoted to that purpose. In recasting the residue of the "wickets" or flakes (*grilles ou lamelles*) which has escaped carbonization, the lead must be cast under a hood communicating with a strong draft and so arranged that the volatile products generated by the fusion will be completely absorbed.

The wickets or flakes incrustated with white lead must be sufficiently wet, by means of a flow of water or vapor, so that they can be manipulated without producing powder before they are collected in the "bed" or carbonizing room. If the emptying of the "white bed" produces dust, each layer of the stack must be previously moistened. Work in the carbonizing rooms (white beds) must not be proceeded with until the rooms have been carefully ventilated. The white lead must then be collected outside, through openings made in the partitions of the room. The lead which has not been carbonized and the white lead must be separated mechanically outside of the carbonizing room. The workmen charged with the collection of the white lead must be provided with masks, respirators, or handkerchiefs, holding moistened sponges upon their noses and mouths.

When the picking and scouring by hand is done with the help of a mallet, the wickets and flakes must be again wet prior to their use. Violent blows must be avoided, and the workmen must be furnished with masks, respirators, or handkerchiefs, as above described. If powder is produced, the scales detached from the lead must be wet before they are removed or piled up.

If use is made of mechanical scrapers or crushers not immersed in water, these apparatus must be inclosed in tight cases connecting with ventilating shafts, so arranged that the lead powder can not escape outside, and they must not be opened to withdraw the scales until the powder has been completely deposited, which must be assured when necessary by means of a jet of steam or spray of water.

If the scouring or riddling is accomplished under water, care must be taken that the hands of the workmen are not brought into contact with the soft lead (*céruse en bouillie*) and that the liquid material is not splashed about.

The wickets and flakes insufficiently carbonized must be prepared for further operations under chimneys with a strong draft as described above. This work can also be performed by passing them between

a For the technical terms employed in these rules see the translation given in the Report of the Chief Inspector of Factories and Workshops of Great Britain for the year 1896, pp. 113 and 114.

cylinders inclosed in cases, with openings of a width only sufficient to permit the turning out of the wickets and flakes when dealt with.

In mixing or washing the scales in water and in filling the pots for drying, due precautions must be taken that the hands of the workmen are not brought in contact with the material and that their hands or faces are not splashed with liquid that may be thrown off.

The ovens must not be entered in order to withdraw the dry white lead before they have been properly cooled and aired.

The cakes of white lead must be mechanically crushed.

The apparatus for crushing, grinding, and sifting must be of such a character that the white lead will pass automatically from one to the other. They must be installed in a special room, inclosed in such a manner that no part of the white lead can escape, and must not be opened until the powdered matter has been completely deposited.

Proper precautions must be taken to prevent any escape of powder during the passage or conveyance of the white lead from the sifter to the casks for transportation. The white lead must never be handled until after a sufficient time has elapsed to insure the complete deposit of the powder. It should be transferred from one receptacle to another slowly and with caution.

The white lead should be placed in casks in such a way that no powder can escape in the workrooms or in the neighborhood.

The white lead must be taken from one workroom to another in closed vessels.

In the operations of working and crushing the white lead with oil as well as in placing it in casks, precautions must be taken that the hands of the workmen do not come in contact with the material and that the hands and face are not splashed.

Following are the rules for the manufacture of the lead oxides—massicot, litharge, and minium:

The furnaces must be established in the open air or in large rooms well ventilated.

Proper precautions must be taken to protect the workmen from powders or vapors during the operations of stirring or removing materials from the ovens. If the furnaces are not in the open air, hoods with a strong draft must be provided above the work doors, as above described.

In mixing with water, crushing, or extracting the massicot from the pits, the hands of the workmen must not be brought in contact with the lead oxide, and precautions must be taken against the splashing of the materials.

The pulverizing and sifting must be accomplished in apparatus hermetically closed, and the latter must not be opened until a sufficient time has elapsed to permit the powder completely to settle.

In transferring the material from one vessel to another, in placing it in casks, or in collecting it, precautions must be taken to prevent the powder from escaping.

For the manufacture of lead chromate and colors containing lead chromate, the following rules are set forth:

Precautions must be taken when material in a liquid state is manipulated that the hands of the workmen do not come in contact with it, nor receive splashes.

The operations of pulverizing, sifting, collecting, and placing in casks must be performed in apparatus that are hermetically closed, and which must not be opened until the powder is completely deposited, or be performed under hoods with strong drafts, as above described.

The second class of provisions are more general in character, but are none the less important. They provide regarding all three classes of lead compounds, as follows:

All the operations of manufacture must be performed in large places, well ventilated, and maintained in a proper state of humidity and cleanliness. The walls and woodwork of the shops must, in particular, be washed every week, and the floors must be washed every day with water, or, preferably, with moistened sand.

The handles of all tools must be kept in a condition of absolute cleanliness.

Measures must be taken that all the lead powders in the air passing up the ventilation chimneys shall be completely deposited before the air escapes outside.

The preference in employment must be given to workingmen who are the least disposed to lead poisoning or those habituated to the dangers resulting from the inhalation or contact with lead compounds.

A separate room must be placed at the disposal of the employees in which they can leave their ordinary clothes and eat their meals when they are taken inside the establishment. This room must be removed as far as possible from the workroom, and be situated in the southwest part of the factory. It must be maintained in a condition of absolute cleanliness, be provided with receptacles for clothing, tables, benches, and a stove for heating food. No workingman must be permitted to enter this room until he has washed himself and has laid off his working clothes. No workingman shall be permitted to leave the building to take his meals in his working clothes or before he has carefully washed those parts of his body which are exposed to the lead powder. Workingmen must not change their clothes, eat, or drink elsewhere than in the special room provided for this purpose or in the open air.

There must also be placed at the disposition of the workingmen, adjacent to the room above mentioned, bathrooms, fountains, or pipes for the distribution of water, provided with a sufficient number of faucets, soap, nailbrushes, clayey sand, towels, and receptacles for holding the work clothes.

The workingman must each time he enters a workroom put on a work garment for protection against lead powder, such as a long blouse fitting closely to the neck and body. These garments must be washed at least once a week.

Those employees engaged upon work presenting danger must be required to wash their hands and faces with clayey sand or soap, then with an abundance of water rinse their mouths, remove the powder from their hair, and take off their work garment each time they leave the shop to take their meals or to return home.

The workingmen must be furnished by the establishment with masks, respirators, or handkerchiefs as well as sponges, and they must be required to use them. These articles must be washed each time they are used.

Each workingman attacked by plumbism must be examined by a

physician attached to the establishment and paid by the employer, and must not be again permitted to be employed upon dangerous work until the physician has certified that he is cured and can again be employed at that work. These certificates must be entered in a register kept for that purpose, which must be exhibited to the authorities whenever they so request.

Those employees who are designated by the physicians as attacked at frequent intervals by plumbism must be definitely discharged.

No person given to drunkenness shall be employed, and no alcoholic liquors shall be permitted in the establishment.

Independently of the foregoing provisions which have as their object the prevention of lead poisoning, manufacturers of white lead and other lead compounds must take the following precautions in order to insure that their establishments shall not constitute a nuisance. No stacks or carbonizing rooms must be established near dwelling houses belonging to other persons. Care must be taken that neighboring wells do not become contaminated with liquids charged with organic matters from the stacks. Water containing lead in solution or suspension must not be allowed to permeate the soil or flow elsewhere outside the establishment than in the sewers. All combustible matter must be kept at a distance from the drying rooms. Proper measures must be taken to protect the employees from danger on account of machinery or means of transmitting power.

The third industry subjected to special regulations is that having to do with the handling of rags. The purpose of these regulations is to prevent the spread of smallpox due to infected rags. All persons in any way occupied in manipulating rags are therefore required by the royal decree issued February 4, 1895, to be vaccinated at least once in every 3 years.

The enforcement of the regulations concerning establishments which are dangerous, unhealthy, or nuisances, belongs in general to the local authorities, though, as will be seen, the central government has considerable power, and exercises the important function of inspection of the establishments. The fundamental decree of 1863 contained the following provisions concerning the enforcement of its regulations:

The authorities can at all times enforce the observance of the conditions which regulate the establishments subject to the provisions of that decree. The authorization granted to an establishment can be withdrawn if the conditions imposed have not been observed, or if the owner refuses to submit to new conditions which the competent authorities can always impose when experience demonstrates their necessity.

The local authorities are charged with the permanent supervision of establishments requiring authorization. A general oversight of the same establishments will be exercised by officers delegated for that purpose by the minister of the interior. The employers subject to this supervision must produce the official plans of their establishment, and the administrative documents regulating their operation whenever requested to do so by the proper authorities.

Infractions of the decree will be punished by fines, or, if necessary, the establishment at fault can be closed by the local authorities. However if the contravention of the decree relates to an establishment authorized by the provincial authorities, or the central government, these bodies must be consulted before action is taken.

In addition to this local supervision the central government in virtue of its general powers delegated special officers for the supervision of dangerous and unhealthy establishments. In order that the powers and duties of these officers might be definitely established, the Belgian Parliament passed the law of May 5, 1888, regarding the inspection of such establishments. This law, which is still in force, provides as follows:

1. The delegates of the Government charged with the inspection of dangerous and unhealthy establishments, as well as the officials charged with the inspection of steam engines and boilers, must be allowed freely to enter mills, factories, depots, and other places subject to their supervision.

These officers must make a formal report of all infractions of the law, which shall be considered as establishing the facts alleged until proof to the contrary is adduced. These reports must, as far as possible, be prepared immediately (*sedance tenante*). One copy must be sent to the person accused of breaking the law within 24 hours after the infraction has been noted. A second copy must be sent to the state's attorney (*procureur du Roi*).

2. Infractions of any of the provisions of decrees relative to establishments which are dangerous, unhealthy, or nuisances, or to steam engines and boilers will be punished by fines of from 26 to 100 francs (\$5.02 to \$19.30).

3. Directors of industrial enterprises, proprietors, employers, directors, or managers who place any obstacle in the way of delegates of the Government in the exercise of their powers of supervision will be punished by fines of from 26 to 100 francs (\$5.02 to \$19.30) without affecting in any way the application of the penalties imposed by articles 269 to 274 of the Penal Code.

4. In case of a repetition of the offense within 12 months from a prior condemnation the minimum fine above provided will be increased to 100 francs (\$19.30) and the maximum to 1,000 francs (\$193).

5. The heads of industrial enterprises are civilly responsible for fines imposed upon their directors or managers.

6. Book I of the Penal Code, without excepting chapter 7 and article 85, is applicable to the infractions of the law mentioned above.

In the following year a royal decree was issued, July 10, 1889, reorganizing and strengthening the system for the inspection of dangerous and unhealthy establishments and creating a committee having as its function to advise the Government concerning the application of laws and regulations regarding such establishments. In the same year the law of December 13, 1889, regulating the employment of women and children, was passed, and in accordance with its provisions a special corps of factory inspectors for its enforcement was organized by the royal decree of November 6, 1891.

Experience demonstrated the desirability of combining these two services, and this was done by the royal decree of September 21, 1894.

The creation of the present ministry of industry and labor, May 25, 1895, and the transference to it of all matters relating to industry and labor necessitated a certain amount of reorganization in the system of inspection of labor. Two royal decrees for this purpose were accordingly promulgated October 22, 1895.

The first of these two decrees has as its object the determination of the respective spheres of activity of the department of agriculture and public works and the newly created department of industry and labor and repeals the decree of September 21, 1894. To the department of agriculture and public works is given the supervision of all matters relating to the external hygienic conditions of industrial establishments, as well as the relations between the internal régime of work and the public health. It is also intrusted with the absolute supervision of certain classes of industries, such as slaughterhouses and places making use of vegetable and animal matter which were peculiarly liable to affect the public health or comfort. All other establishments were placed under the supervision of the department of industry and labor. The principle of this division of powers is evident. The department of agriculture and public works looks after the protection of the public health and comfort, while the department of industry and labor cares for the protection of the lives and health of the employees.

The second decree of October 22, 1895, regulates in greater detail the actual organization of the inspection service. The system of a single inspection service for the enforcement of both the decrees concerning dangerous and unhealthy establishments and the law regulating the employment of women and children, introduced by decree of September 21, 1894, is continued. To these duties the special law of April 11, 1896, added that of enforcing the law of August 16, 1887, in relation to the payment of wages. The system of inspection provided by the law of October 22, 1895, is as follows:

1. The mining engineers are charged with the supervision of the execution of the law of December 13, 1889, concerning the labor of women, young persons, and children in coal and metal mines, quarries, and the manufacture of iron and steel and other metals, including all dependent works connected with them. This list of industries, which is given in the decree in greater particularity than is here reproduced, can be modified or added to by the minister of industry and labor. An engineer of mines attached to the central administration must be delegated to centralize this service.

2. For all industries not included in the above enumeration the same supervision will be exercised by an inspection service attached to the bureau of labor. This service will include inspectors of labor at the central administration and inspectors and delegates residing in the provinces, the districts and resources of which will be fixed by decree of the minister of industry and labor.

3. The officials and agents above designated will have as their duties: (1) To visit industrial establishments subject to the law of December 13, 1889; (2) to inform themselves concerning all infractions of the law or regulations issued in relation to it; (3) to grant, when proper, the authorizations prescribed in article 7, section 4, of that law in relation to the employment of young persons and children on a seventh day in the week, and (4) to submit reports and recommendations concerning the application of the law.

4. The mining engineers and inspectors of labor above mentioned, as well as the delegates of the Government for the inspection of other establishments classed as dangerous, unhealthy, or nuisances, shall also have as their duty: (1) To supervise the execution of the laws, decrees, and regulations concerning such dangerous and unhealthy establishments by inspecting them and ascertaining any infractions that may have been committed; and this supervision must have in view not only the conditions regarding the public health and safety in the neighborhood of establishments, but also the health and safety of the employees; (2) to verify the efficacy of the provisions formulated in decrees of authorization, and to propose new provisions when those that have been prescribed are not sufficient; (3) to give their opinion concerning the authorization of dangerous and unhealthy establishments whenever requested to do so.

5. The inspectors of labor attached to the central administration shall have as their special duty the supervising of those particular industries and establishments that are indicated to them by the minister of industry and labor. They will also exercise a control over the work of the inspectors and delegates in the provinces. The same officials and the general inspectors of mines must give their opinion, when requested by the King, in regard to establishments which are dangerous, unhealthy, or nuisances, and concerning questions of classification or grouping of industries which are submitted to them by the minister.

6. Establishments which are placed under the supervision of the department of agriculture and public works are not subject to the provisions given in the two preceding paragraphs.

7. The minister of industry and labor can always charge the inspectors of labor with all or a part of the new duties of the mining engineers, or vice versa, where the topographical situation of the establishments is such that the efficiency of the service will be thereby promoted.

8. The inspectors of factories and mining engineers charged with inspection duties shall be required, independently of their professional duties, to give advice and furnish statistical and other information which may be requested of them by the authorities and which they have collected in order to determine the effect of the labor legislation and to study the reforms that can be introduced in it.

9. A committee, the composition and organization of which will be determined by the minister of industry and labor, will be created to supervise the regular and uniform execution of the law of December 13, 1889.

10. The remuneration of inspectors of labor will be fixed by the decree providing for their appointment. Delegates for the inspection of labor will not have a fixed salary, but instead will receive a per diem while upon inspection work. Traveling and subsistence expenses

of the inspectors of labor, as well as the per diem and traveling expenses of the delegates, will be allowed according to a tariff fixed by a special decree.

11. Inspectors residing in the provinces must make inspections on from 150 to 200 days per year, and the delegates permanently employed on from 50 to 100 days per year. The number of days of inspection work required of inspectors attached to the central administration will be determined by the minister of industry and labor.

In the foregoing regulations Belgium has built up, by royal decrees, an exceptionally effective system for the protection of the lives and health of employees in industrial establishments. The power on the part of the King to make such decrees existed, as will be remembered, only in respect to establishments that were classed as dangerous, unhealthy, or nuisances. Though this category was made very comprehensive, there still remained establishments which could not be included, and others concerning the propriety of the inclusion of which some doubt might exist.

All such uncertainty has now been removed by the act passed July 2, 1899. This very important law confers full power upon the Government to prescribe measures for the protection of employees, not only in dangerous and unhealthy establishments, but in all kinds of industries, including even commercial enterprises. Following are the provisions of this act:

1. The Government is authorized to prescribe the measures necessary to insure the healthfulness of workshops or of labor and the security of workmen in commercial and industrial enterprises the conduct of which presents danger, even when they are not classed as dangerous, unhealthy, or nuisances. These measures can be imposed upon workmen, if necessary, as well as upon employers and heads of enterprises.

The Government is equally authorized to prescribe the declaration that must be made in the case of accidents occurring in these enterprises.

Excepted from these provisions are those enterprises where the employer works only with the members of his family living with him or with the domestics or persons of the household.

2. Except as regards those enterprises which, independently of the present law, are subject to a régime of authorization or prior declaration, the Government can not exercise the powers set forth in the preceding article, except by way of general decrees (*arrêtés*) and after having taken the advice of (1) the councils of industry and labor or the sections of these councils representing the industries, professions, or trades concerned; (2) the permanent deputations of the provincial councils; (3) the Royal Academy of Medicine, the superior council of public hygiene, or the superior council of labor.

These bodies must transmit their opinion within two months after their advice has been asked, and in the case of their failure to do so action can be taken without it.

3. The officers of the Government charged with the execution of the present law shall have the right of free access to all places connected with the enterprises.

The stating and preventing of infractions of this law shall be made in conformity with the law of May 5, 1888, relative to establishments classed as dangerous, unhealthy, or nuisances, without prejudice, however, to chapter 10 of the law of April 21, 1810, in that which relates to mines, subterranean quarries, and metallurgical establishments regulated by that law.

EMPLOYMENT OF WOMEN, YOUNG PERSONS, AND CHILDREN.

While Belgium was early developing a code of regulations for the protection of the health and lives of industrial workers, little or no advance was being made in the direction of limiting the hours of labor or employment of women and children. The power of the King to promulgate decrees in relation to the conditions of work in dangerous and unhealthy establishments did not include the right to regulate hours of labor or determine what classes should be employed. In the failure of the Parliament to act, Belgium, therefore, until very recent times, possessed no regulations concerning the employment of women and children or hours of labor in any form.

Investigations concerning the employment of women and children were made in the years 1846 to 1848, in 1871, and again in 1874, and bills were introduced for restricting the employment of these classes. These measures all failed of enactment on account of the determined opposition of the employing class. The reports of the royal commission on labor in 1887 and 1888, however, made it inevitable that legislation of some character in relation to this subject would be enacted. A bill looking toward this end was almost immediately introduced, and was finally enacted December 13, 1889. The importance of this measure requires the reproduction of its provisions, and those of the decrees that have followed for its elaboration, with considerable fullness.

The law relates exclusively to the employment of women, young persons, and children. Its provisions apply to work performed in (1) mines, quarries, and yards; (2) factories and workshops; (3) establishments classed as dangerous, unhealthy, or nuisances, and those in which use is made of steam boilers or mechanical motive power; (4) ports, wharves, and stations; and (5) transportation by land or water. Public as well as private establishments, including those for technical instruction or of a charitable nature, are comprehended.

The law, it will be seen from this statement, is very comprehensive. It relates to almost all kinds of industrial work except fishing and agriculture, where no use is made of mechanical power. The only important exception is that in relation to domestic household work. It does not apply to work carried on in establishments where only the members of one family are employed under the direction of the father or mother or of a guardian, provided that the places where this work is performed are not classed as dangerous, unhealthy, or nuisances,

and that the work is not performed by means of steam boilers or a mechanical motive power.

For the purposes of the law industrial workers in the industries enumerated are divided into the following classes: Adult males, or men 16 years of age or over; adult females, or women 21 years of age or over; boys, or males 12 years but under 16 years of age; girls, or females 12 years but under 21 years of age; and children, or persons of both sexes under 12 years of age.

The labor of adult males, or men 16 years of age or over, is subjected to no regulation in any form.

The only restriction upon the employment of adult females is a provision that women shall not be permitted to work during the four weeks following their confinement.

The employment of children, or persons of both sexes under 12 years of age, is absolutely prohibited.

The remaining provisions of the law, therefore, relate almost exclusively to boys, or males 12 years but under 16 years of age, and girls, or females 12 years but under 21 years of age, and in general are the same for these two classes. In the subsequent summary of the law, where the expression boys and girls is used, it will be understood that reference is had to persons as above defined.

The law itself imposes only general restrictions upon the employment of these classes, but grants large powers to the King to promulgate decrees restricting their employment in particular industries. In order to gain a knowledge of the extent to which the employment and hours of labor of boys and girls are regulated in consequence of this law, it will be necessary to give the main provisions of the decrees that have been issued in virtue of its provisions. It will be conducive to clearness to consider, first, those provisions restricting the employment of boys and girls; and, secondly, those limiting their hours of labor and intervals of rest when employed.

The only positive prohibition of the employment of boys or girls by the law itself is that girls under 21 years of age can not be employed in underground work in mines or quarries after January 1, 1892. This provision does not apply to persons already so employed prior to the date above indicated.

Article 3 of the act provides that the King may by decree prohibit the employment of boys and girls, as above defined, in any work which is too severe for their strength or which presents features exposing them to danger; or he may restrict their employment to a certain number of hours or under certain specified conditions in work recognized as unhealthy. Before promulgating such a decree the King must take the advice of (1) the councils of industry and labor or those sections relating to the industries to which the decree will apply; (2) the permanent deputation of the provincial council, and (3) the superior

council of public hygiene or a technical committee. These bodies must give their opinion concerning any matters submitted to them within two months after the request is made. When this is not done action can be taken without regard to them.

In pursuance of this article, the King issued a royal decree dated February 19, 1895, fixing the age at which boys and girls can be employed in a large number of industries. In twenty kinds of establishments, mostly chemical, the employment of boys under 16 and girls under 21 years of age is absolutely prohibited. In forty-five others, having to do chiefly with chemical and animal or vegetable products, the employment of boys and girls under 16 years of age is prohibited. Two lists of industries are given in which are indicated certain departments or branches of work in which the employment of boys and girls under 16 years of age and boys and girls under 14 years of age, respectively, is prohibited. Finally, special sections regulate the conditions under which boys and girls may be employed in match and rubber works. These conditions are as follows:

In chemical match factories, in addition to the restrictions imposed by the decree of December 26, 1892, the following limitations are imposed upon the employment of boys and girls. These two classes must not be employed in shops where paste containing white phosphorus is manufactured, nor in shops for the drying of matches dipped in such paste, nor must they be employed in the operation of dipping matches in such paste. Children under 14 years of age can not be employed in filling boxes with matches containing white phosphorus.

In shops where india rubber is treated with sulphuret of carbon, boys and girls under 16 years of age can not be employed. Girls 16 but under 21 years of age can only be permitted to work 5 hours each day, $2\frac{1}{2}$ of which must be in the forenoon and $2\frac{1}{2}$ in the afternoon.

This decree has been modified by one issued August 5, 1895, regarding the employment of boys and girls in rag factories, and supplemented by a decree issued April 5, 1898, concerning the manipulation of rabbit and hare skins.

The first of these provides that no child under 14 years of age shall be employed in certain parts of rag factories; that the places in which children from 12 to 14 years of age are employed must be separated from the other parts of the establishment, and be well lighted and ventilated, and that a separate room must be provided in which these children can change their clothes before beginning and after ending their work.

The second provides that boys under 16 and girls under 21 years of age shall not be employed in the work of treating the skins of rabbits and hares with acid nitrate of mercury in places where such skins are undergoing the operation of being treated with oil of carrots (*secrétage*); also that boys and girls under 16 years of age can not be employed in

places where the skins are being prepared for such treatment, or in subsequent work, such as brushing, carrying, or cutting.

Turning now to the subject of the regulation of the hours of labor and periods of rest of boys and girls, the law of 1889 contains the following positive provisions: Boys under 16 years and girls under 21 years of age must not be employed more than 12 hours per day, divided by intervals of rest, the total duration of which must not be less than 1½ hours. These classes must not be allowed to work after 9 p. m. nor before 5 a. m., except when specially authorized by the King, in work which from its nature can not be interrupted or delayed, or can only be performed at stated hours. They must not be employed for more than 6 days in each week, except when specially authorized by the King or other authorities and under such conditions as they impose. The conditions under which the special authorizations for overtime work above referred to may be made are stated by the law as follows:

The King may authorize, either unconditionally or under certain conditions, the employment of boys and girls over 14 years of age after 9 p. m. or before 5 a. m., in work which, from its nature, can not be interrupted or delayed, or can only be performed at certain hours. In mining he can further authorize the employment at night of certain classes of employees over 14 years of age, or the employment after 4 a. m. of boys who have completed their twelfth year. The same authorization may be granted for a definite period by the provincial governors, upon the report of a competent inspector, for any industry or trade where a stoppage of work has been caused by an accident or exceptional circumstance. The order of the governor, however, will cease to be effective if it is not approved within 10 days by the minister to whom the supervision of the industry is intrusted. These authorizations by the provincial governors may be granted for a period not exceeding two months, but can be renewed with the consent of a competent inspector.

In respect to the employment of boys and girls over 14 years of age more than 6 days in a week, the King may authorize such classes to work 7 days in each week, either regularly, or for a definite period, or under such conditions as he may deem advisable, in those industries in which the nature of the work is such that it does not permit of interruption or delay. Where such authorizations are granted the employees must always be allowed the time necessary to attend to their religious duties once each week, and be given a full day's rest in each fortnight. In cases of necessity, inspectors of labor, mayors, and governors may authorize the employment of boys and girls on a seventh day in all industries. Notice of this authorization must be immediately given to the ministers intrusted with the supervision of these industries. The ministers can grant this authorization for several consecutive

weeks, not in excess of 6, upon the recommendations of an inspector, as far as girls 16 but under 21 years of age are concerned.

In addition to their direct limitations upon the hours of labor of boys and girls contained in the law itself, provision is made whereby the King is not only empowered, but is positively directed within a period of 3 years from the publication of the law to issue decrees regulating "the daily hours of labor as well as the duration and conditions of rest, so far as concerns boys under 16 years of age and girls under 21 years of age, according to the nature of the occupations in which they may be employed and the requirements of the industry, profession, or trade."

In execution of this mandate the King has issued a large number of very important decrees, each having as its purpose the regulation of the hours of labor and periods of rest of boys and girls in a special industry. The first and most important series of decrees was issued December 26, 1892. The following is a summary of their provisions:

In spinning and weaving flax, cotton, hemp, and jute the hours of labor of boys under 16 years of age and of girls under 21 **must not** exceed $11\frac{1}{2}$ per day. There must be 3 intervals of rest per day, aggregating at least $1\frac{1}{2}$ hours, the one in the middle of the day consuming 1 hour, and during these intervals the employees may leave the building. The period of actual employment of children under 13 must not exceed 6 hours a day, with a rest interval of 15 minutes.

In the woolen industry the hours of employment of boys under 16 and girls under 21 must not exceed $11\frac{1}{2}$ per day, with a total rest period of $1\frac{1}{2}$ hours, divided into 3 intervals, the one at the middle of the day being 1 hour long.

In the newspaper printing industry boys under 16 and girls under 21 must not be required to work more than 10 hours a day, broken by several intervals of rest aggregating $1\frac{1}{2}$ hours.

The art industries are required to limit the hours of labor to 10 per day for boys under 16 and girls under 21. In type founding, however, the limit is 8 hours for persons under 16 years of age. There are 3 intervals of rest aggregating $1\frac{1}{2}$ hours.

In the paper-making industry the age classification is different from that shown in the preceding industries. Boys between 14 and 16 and girls between 14 and 21 must not be required to work more than 10 hours a day with 3 rest intervals, making a total of $1\frac{1}{2}$ hours, while children of both sexes between 12 and 14 must not be required to work more than 6 hours a day, broken by one or more intervals of rest aggregating half an hour. Boys from 14 to 16 can be employed after 9 p. m. and before 5 a. m., not more than 10 hours a day, with rest intervals aggregating $1\frac{1}{2}$ hours.

In the tobacco and cigar industry the hours of labor for boys between 14 and 16 and girls between 14 and 21 years of age must not exceed 10 per day, with 3 intervals of rest amounting altogether to $1\frac{1}{2}$ hours. Children of both sexes between 12 and 14 years of age must not be required to work more than 6 hours a day, with one or more intervals of rest amounting in all to half an hour.

In the manufacture of sugar the time of labor of boys under 16 and girls under 21 must not exceed $10\frac{1}{2}$ hours a day, with 3 intervals of

rest of a total length of not less than $1\frac{1}{2}$ hours. Boys from 14 to 16 and girls from 14 to 21 may be employed at night work between 9 p. m. and 5 a. m., but the hours of labor must not exceed $10\frac{1}{2}$ nor the rest intervals be less than $1\frac{1}{2}$ hours a day.

In furniture making and the industries incident to house furnishing persons of both sexes under 16 years of age must not be required to work more than 9 hours a day during October, November, December, January, February, and March, nor more than 10 hours a day during the other months of the year. There must be 3 rest intervals having a total duration of $1\frac{1}{2}$ hours, of which the one at midday consumes 1 hour.

In the manufacture of pottery and earthenware boys under 16 and girls under 21 years of age may be required to work not more than 10 hours a day, with 3 intervals of rest aggregating $1\frac{1}{2}$ hours, the one at midday consuming 1 hour.

In the manufacture of fireproof articles the same provisions shown for pottery and earthenware apply.

The plate-glass industry may require not more than 10 hours' work per day from boys under 16 and girls under 21, and there must be 3 intervals of rest aggregating $1\frac{1}{2}$ hours, the one at midday being 1 hour long. For the process of "tapping" the glass, boys from 14 to 16 years old may engage in night work after 9 p. m. and before 5 a. m., but their total hours of labor per day must not exceed 10, nor their rest intervals be less than $1\frac{1}{2}$ hours; for this process they may also be employed a seventh day every other week not to exceed 6 hours, with a half hour's interval for rest and sufficient time to attend to their religious duties.

In chemical match factories the hours of labor of boys under 16 and girls under 21 must not exceed $10\frac{1}{2}$ a day, broken by 3 rest intervals making a total of $1\frac{1}{2}$ hours, of which 1 hour must be used at midday. During these intervals the employees must leave the workrooms.

In building industries the daily hours of labor of employees under 16 years of age must not exceed 8 during November, December, January, and February. During the remaining months of the year 10 hours of labor per day may be required. Intervals of rest of not less than 1 hour a day in all must be given during the 4 months named, and of $1\frac{1}{2}$ hours during the rest of the year.

The zinc-rolling industry may require from its male employees from 14 to 16 and its female employees from 14 to 21 years of age not more than 10 hours of labor per day, which must be broken by intervals of rest whose total length is $1\frac{1}{2}$ hours, the principal interval being 1 hour long between 11 a. m. and 2 p. m. Boys and girls from 12 to 14 years old must not work longer than 5 hours a day, with a rest interval of half an hour. Persons of both sexes from 14 to 16 may be employed at night work between 9 p. m. and 5 a. m., but their combined night and day work must not exceed 10 hours a day, nor the period of rest be less than $1\frac{1}{2}$ hours, the principal interval of rest being at least half an hour long between 11 p. m. and 2 a. m.

In crystal glass and glass-vessel making boys under 16 and girls under 21 must not be required to work more than 10 hours and 20 minutes a day. There must be 3 rest intervals, a morning and an afternoon interval, each 20 minutes long, and a midday rest of 30 minutes. Boys between 14 and 16 and girls between 14 and 21 may be employed on night work after 9 p. m. and before 5 a. m., but the combined hours

of work must not exceed those provided for day employees of the same classes. Every other week, persons between 14 and 16 years of age may be employed a seventh day in making glass tiles and other similar processes which necessitate the use of glass properly settled. The hours of labor must not exceed 6 on such a day, must be broken by a rest of half an hour, and the proper time must be allowed to attend to religious duties.

The industries engaged in the manufacture of wearing apparel are divided into two groups by the decree relating to them. The first group includes the manufacture of woolen, cotton, and flax hosiery and trimmings; lace and embroidery making; the manufacture of tulles and blondes, and the manufacture of woolen, flax, hemp, and silk braids. The daily hours of labor in this group must not exceed 11 for boys under 16 and girls under 21 years of age, and the 3 intervals of rest must equal $1\frac{1}{2}$ hours, of which at least 1 hour must be taken at midday. The second group includes the manufacture of leather and leather goods, hats, fancy linen articles, buttons, gloves, umbrellas, etc. In this group the hours of labor of boys under 16 and girls under 21 must not exceed 10 per day, with intervals of rest amounting to 1 hour, during which the employees may leave the workrooms.

In heavy engineering work boys between 14 and 16 and girls between 14 and 21 years of age must not be required to work more than 11 hours a day, while the hours of labor of persons of both sexes under 14 years of age must not exceed 10 per day. Rest intervals of not less than an hour altogether must be given, during which the employees may leave the workshops.

Light engineering work is divided into four lists, according to character of work done. In the first list, comprising the manufacture of screws, bolts, small tools of various kinds, agricultural and gardening implements, wire, steel pens, cutlery, etc., the daily hours of labor of boys from 14 to 16 and girls from 14 to 18 years of age must not exceed 11, while children of both sexes from 12 to 14 years old may be required to work not more than 10 hours a day. In the other lists, which include the manufacture of scientific instruments, iron and copper castings used in smaller mechanical work, and swords and small arms, the hours of labor of boys under 16 and girls under 21 must not exceed 10 per day. The rest intervals for all employees in light engineering work must aggregate $1\frac{1}{2}$ hours a day, including a midday rest of at least half an hour.

The foregoing series of decrees has been amended or supplemented in several respects.

In brick and tile works (hand work) and other similar works the hours of labor were successively regulated by decrees issued December 26, 1892, May 1, 1894, and September 8, 1894. These were repealed and replaced by a decree issued September 22, 1896, which gives the regulations now in force. The daily hours of work for boys under 16 and girls under 21 must not exceed 12. When the period of actual work exceeds 8 hours, there must be 3 rest intervals, of which the total length must be at least $1\frac{1}{2}$ hours, the one at midday occupying 1 hour. When the period of actual work exceeds 6 hours, 1 or more intervals of rest must be given, together equaling 1 hour. Whatever

be the period of actual work, there must be at least 15 minutes' rest for every 4 hours' work.

On December 31, 1892, a decree was issued by the King regulating in considerable detail the conditions of work as regards hours of labor and intervals of rest in the window-glass industry. A different system of shifts was in use in different branches of the industry. This decree establishes a uniform régime for all parts of the work. The hours of labor must not exceed $10\frac{1}{2}$ for boys under 16 and girls under 21, broken by intervals of rest amounting to $1\frac{1}{2}$ hours, which may be proportionately reduced if the daily hours of labor are less than $10\frac{1}{2}$. Each period of employment is to be followed by an interval twice as long as the period of employment itself; but this provision may be modified in order to insure a whole day of rest in every 14 in accordance with the law of December 13, 1889. Boys from 14 to 16 and girls from 14 to 21 years of age may be employed after 9 p. m. and before 5 a. m., their period of employment and intervals of rest being regulated according to the rules governing day workers. Every other week boys from 14 to 16 and girls from 14 to 21 may be employed for a seventh day.

On March 15, 1893, a second series of decrees was issued, the purpose of which was to fix the hours of labor and rest in mines, quarries, and the large metal industries which, according to the law of April 21, 1810, were for the purposes of State control assimilated with mines and under the supervision of the ministry of agriculture and public works. As the present study does not embrace an examination of the regulation of labor conditions in mines and quarries, only the provisions of the decrees relating to the manufacture of iron and steel and other metals are here reproduced. These provisions are as follows:

The period of employment of work people protected by law must not exceed $10\frac{1}{2}$ hours per day, with intervals of rest, the total length of which must be not less than $1\frac{1}{2}$ hours. The intervals of rest may be reduced if the hours of actual work are reduced. Boys from 14 to 16 years of age and girls from 16 to 21, engaged in feeding the blast furnaces, may be employed from 9 p. m. to 5 a. m. under the same regulations that apply to the day work. Every other week boys from 14 to 16 may be employed a seventh day for feeding blast furnaces and zinc furnaces, but sufficient time must be allowed them to attend to their religious duties.

All of the foregoing decrees, it should be observed, contain provisions making it obligatory upon employers subject to their provisions to post in their establishments notices showing for the protected classes the hours at which work begins and ends and the intervals allowed for meals or rest. In order to complete this system and make its application general, a decree was issued November 4, 1894,

extending this obligation to all establishments comprehended under the law of December 13, 1889, which were not already embraced under the provisions of special decrees.

Returning now to the remaining provisions of the law of 1889, the most important are those relating to the method of enforcing the law. All boys and girls must be provided with pass books (*cartes*), which will be furnished to them gratuitously by the administration of the commune in which they reside, and which will indicate their names, places and dates of birth, their address, and the name, surname, and address of the father and mother or guardian. The form of these books will be determined by a royal decree. Heads of industrial establishments, employers, and managers must keep a register showing the same information for each boy and girl employed by them.

Employers and managers must also keep posted in a conspicuous place in their establishments a copy of the provisions of the present law, the general regulations promulgated for its execution, the special regulations relating to their industries, and their own shop regulations. Copies of this last paper must be deposited at the offices of councils of prudhommes and of the council of industry and labor and at the office of the secretary of the commune having jurisdiction over their establishments.

The penalties for violating the provisions of this law are as follows: Any head of an industrial establishment, employer, director, or manager who knowingly contravenes any provision of the present law will be punished by a fine of from 26 to 100 francs (\$5.02 to \$19.30). This fine will be imposed as many times as there are persons employed in contravention of the provisions of the law or decrees in relation to it, provided that the total amount of such fines does not exceed 1,000 francs (\$193). In case of a second offense within 12 months from a former conviction the amount of the fines will be doubled, but can not exceed in total amount 2,000 francs (\$386). The heads of industrial establishments are civilly responsible for the payment of fines imposed upon their directors or managers.

Any father, mother, or guardian who causes or permits his or her child or ward to be employed contrary to the provisions of the present law will be punished by a fine of from 1 to 25 francs (\$0.19 to \$4.83). In case of a second offense within 12 months from a prior conviction this fine will be doubled. All infractions of the law must be prosecuted within a year from the day upon which they were committed. By way of exception to article 100 of the Penal Code, chapter 7 and article 85 of the first book of that code are applicable to infractions of this law.

Provision is made for the organization of a factory-inspection service. The law provides that the Government shall designate officials to supervise the execution of the law, the specific duties of whom will be

determined by a royal decree. These officials must have the right of free entrance to all establishments comprehended under the law. They can demand the production of the pass books of the boys and girls, and the registers containing the same information. In case an infraction of the law is noted the inspectors must make a report concerning it, which will be considered as conclusive evidence in the absence of proof to the contrary. A copy of this report must be given within 48 hours to the person accused of breaking the law, in default of which no action can be taken upon the accusation.

Heads of industrial establishments, employers, managers, agents, and workmen must furnish inspectors with any information demanded of them for the purpose of insuring the enforcement of the law. Any proprietor, employer, director, or manager who places any obstacle in the way of the supervision service organized in virtue of the preceding provisions will be punished by a fine of from 26 to 100 francs (\$5.02 to \$19.30), without supplanting in any way the application of the penalties provided for by articles 269 to 274 of the Penal Code. In case of a second offense within 12 months from a former conviction the fine will be doubled.

An inspection service was duly organized in virtue of the foregoing provisions. This service was ultimately merged into that for the enforcement of regulations relating to establishments which are dangerous, unhealthy, or nuisances. The two systems were therefore described in one place.

SHOP REGULATIONS.

An important step was taken in the gradual evolution of a labor code, which has been taking place since the report of the labor commission of 1886, by the enactment of a law, June 15, 1896, concerning shop regulations. This law covers a large number of points. It provides that shop regulations shall be prepared and posted in all industrial establishments, sets forth the matters that must be contained in these orders, regulates the imposition of fines, etc. An important feature of the law is that whereby the employees are given a voice in the framing of these regulations. The provisions of the law are so compactly stated that it is not advisable to attempt their condensation. The law is therefore reproduced in full:

1. In industrial and commercial enterprises, as well as provincial and communal undertakings, in which at least 10 workmen are employed, written shop regulations must be prepared in the manner provided for in this law. This obligation can be extended by royal decree to enterprises employing less than 10 persons. Prior to 1900 it is extended to enterprises employing at least 5 persons. Exceptions to this provision are agricultural enterprises, as well as industrial and commercial enterprises where the employer only works with his house-

hold or members of his family living with him, or whose workmen can be considered as domestic or household servants.

The shop regulations must be drawn up in French, Flemish, or German, or in as many of these languages as may be required, so that they can be understood by all the employees of the establishment.

2. The regulations must indicate, according to the nature of the enterprise, (1) the commencement and end of the regular work period, the intervals of rest, and the days of regular cessation of work; (2) the manner in which wages are determined, and especially whether by the hour, day, piece, or undertaking; (3) when payment is by the piece or enterprise, the method of measurement and control; (4) the times of wage payments.

If the workmen are present in the establishment only for the purpose of obtaining the raw materials and returning the product of their work, number (1) of this article will be replaced by the indication of the days or hours when the establishment is accessible to them.

3. Where the nature of the enterprise makes it necessary, the regulations must also indicate (1) the rights and duties of the overseers and the recourse open to workmen in cases of complaint or difficulties; (2) the materials furnished the employees and charged against their wages; (3) if a notice of dismissal is required, the length of notice that must be given, and the circumstances under which the labor contract can be broken without previous notice by either party; (4) if penalties or fines are imposed, the nature of the penalties, the rate of the fines, and the manner of their imposition.

4. No penalties or fines other than those mentioned in the regulations can be imposed. Notice of penalties or fines must be given to the persons upon whom they are imposed the same day upon which they are levied, or, in case obstacles are encountered, as soon as possible. The names of the persons punished, the date and cause of the punishment, as well as the nature of the penalty or amount of the fine, must be entered in a register. This register must be approved before payment of wages by the head or director of the enterprise. It must be shown to the inspectors of factories whenever they request it.

5. A royal decree may also require that, in the categories of industries mentioned by it, the factory regulations shall also indicate (1) the special rules adopted for securing hygienic conditions, safety, morality, and good conduct; (2) the first care that will be given to workmen in case of accident.

6. Within 6 months from the promulgation of the present law the King will call together the sections of the councils of industry and labor for the purpose of drawing up, in taking account of existing customs, types of regulations conforming to the provisions of the preceding articles.

7. Before entering in force, every new regulation or every change in a regulation must be brought to the knowledge of the workmen by means of a poster. During at least 8 days following this posting the director of the enterprise must place at the disposition of his employees a register in which they, individually—or the circumstances requiring it, by their representatives or the shop council, or any other analogous delegation—can enter such observations as they may desire to make. The workmen may during the same period address individually and in writing their observations to the inspector of factories of the district. The inspector will transmit these observations to

the head of the establishment within 3 days of their receipt. These observations must be signed by the workingmen; however, if they so express their wish, their names must not be communicated nor divulged.

Whether the regulations or amendments to the regulations are changed or not, they will enter into force 15 days after they are posted. The head of the establishment has the right to prolong this time, but its total duration must not exceed two months. When advantage is taken of this option, the posted regulations must mention the day upon which they will enter into force. The head of the establishment must send to the inspector of factories and the council of prudhommes a copy of the definitive regulations or amendments to the regulations.

8. Every regulation or amendment to a regulation must bear the attestation, duly signed by the head of the establishment, that the workingmen have been regularly consulted, as provided for in article 7 of the present law.

9. The regulations or prior existing usages will remain effective until the new shop regulations enter into force. However, if the regulations ought to contain, conformably to article 5, special rules concerning healthfulness, safety, morality, and good conduct, these regulations, in derogation to article 7, section 5, will enter into force provisionally from the day upon which they are posted.

10. The regulations made in conformity with the present law will unite the parties during the period of their contract, both as regards the obligatory provisions above indicated and as regards the optional provisions which are joined to them for the purpose of establishing the conditions of the labor contract.

11. The regulations must remain posted in the establishment in a conspicuous place. Every employee shall have the right to make a copy of them. The names and addresses of the persons delegated by the Government as inspectors of factories must be given below the regulations.

12. The heads of establishments subject to the present law must keep an exact register of their employees, according to the form prepared by the administration.

13. A royal decree will determine the establishments in which a copy of the laws and decrees relative to healthfulness and safety must be placed by the head of the enterprise at the disposition of his employees. The same decree will indicate the laws and decrees to which this obligation will relate.

14. The inspectors must be given free entrance into all places covered by the law. They shall supervise the execution of the present law, and make a report concerning all infractions of the law which shall be considered as established in the absence of contrary proof. A copy of the report must be sent within 48 hours to the person at fault, in default of which the charge will become a nullity.

15. The heads of establishments, employers, directors, or managers who do not provide shop regulations within the time fixed by law, or who falsely certify to the regular consultation of their employees, will be punished by fines of from 26 to 1,000 francs (\$5.02 to \$193). The heads of establishments, employers, directors, or managers who fail to include in their regulations one or more of the provisions provided for by articles 2, 3 (sections 1 and 2), 5, and 8 will be punished by a fine of from 26 to 500 francs (\$5.02 to \$96.50). In the above cases the penalty will be imposed a second time if the person punished neglects

to conform to the law within 3 months after the condemnation or the signing of the judgment of condemnation by default.

16. The heads of establishments, employers, directors, or managers who fail to comply with articles 4, 11, 12, 13, and 24 of the present law will be punished by fines of from 26 to 200 francs (\$5.02 to \$38.60).

17. The heads of establishments, employers, directors, or managers who place any obstacle in the way of supervision, organized in virtue of the present law, will be punished by fines of from 26 to 100 francs (\$5.02 to \$19.30), without prejudice of the application of the penalties provided for by articles 269 to 274 of the Penal Code. In case of a subsequent offense within 12 months of the former condemnation, the penalty will be doubled.

18. Chapter 7 and article 85 of the first book of the Penal Code are applicable to infractions to which the present law has reference.

19. The public action resulting from the infraction of the provisions of the present law will be prescribed yearly (*se prescrit par un an*).

20. The heads of establishments are civilly responsible for the payment of the fines pronounced against their directors or managers.

21. Royal decrees having for their object the extension of the obligation concerning factory regulations to establishments employing less than 10 persons, must indicate the date at which they will enter into force, and the delay that will be granted to the heads of establishments in which to conform to the legal prescriptions.

22. Heads of establishments shall have until December 31, 1897, to prepare and modify their regulations so that they will conform to the present law.

23. The following clause will be added after the first section of article 7 of the law of August 16, 1887, concerning the regulation of the payment of workingmen's wages, "also under the head of indemnities for badly-made work, the improper use of materials, or deterioration of materials, raw materials, or products."

24. The total fines imposed per day upon a workingman must not exceed one-fifth of his daily wages. The amount collected in fines must be employed for the benefit of the workingmen.

PAYMENT OF WAGES.

One of the first acts passed in accordance with the recommendations of the labor commission of 1886 was that of August 16, 1887, concerning the payment of workingmen's wages. This law, the purpose of which is to insure that employees shall receive their wages in cash, except under certain specified conditions when they may be remunerated in other ways, is very brief and is reproduced in full:

1. The payment of wages of workingmen must be in coin or legal current notes. All payments made in any other way will be treated as null and void.

2. An employer may, however, deduct from the wages of his employees charges for (1) the furnishing of lodging; (2) the use of a plat of ground; (3) the supplying of tools or implements necessary for their work and the keeping of them in repair; (4) the furnishing of the goods or materials necessary for the work of which the employees have charge, according to custom or the terms of their contract; and (5) the provision of such uniform or special dress as the employees

are required to wear. The articles enumerated in (3), (4), and (5) must not be reckoned at a price greater than their cost.

3. The permanent deputations may authorize employers to deduct from their employees' wages charges for the supply of food, clothing, and fuel, provided that they are furnished at cost price. These authorities must at the same time determine the other conditions to which this authorization is subject. Where there is a council of industry and labor in the district, these conditions must be first submitted to its consideration or that of a competent section. This authorization may always be revoked where the privilege is abused, after the council of industry and labor or its proper section has been heard. When an authorization has been refused, or has been revoked, an appeal may be made to the King within a month from the time when the permanent deputation notified the person interested of its action.

4. Wages must not be paid to workingmen in saloons, drinking places, stores, shops, or places attached to them.

5. Where wages are not in excess of 5 francs (\$0.97) per day they must be paid to the workingmen at least twice a month and at least at intervals not exceeding 16 days. In piece or task work a partial or final adjustment of wages due must be made at least monthly.

6. With the exception of the numbers (3), (4), and (5) in article 2, employers, directors, overseers, foremen, employees of a public or private administration, and heads or subheads of enterprises are prohibited from imposing upon any employees working under their orders any arrangement or from making any agreement with them by which employees give up their right freely to dispose of their wages as they see fit. Nevertheless, lodging and the use of a tract of ground as provided for in numbers (1) and (2) of article 2 may be made the subject-matter of a contract between the employers, directors, foremen, overseers, employees of a public or private administration, or heads or subheads of an enterprise and their employees, provided such contract is freely entered into.

7. Deductions can only be made from the wages of an employee (1) on account of fines duly provided for by the interior shop regulations posted in the establishment; (2) on account of contributions due from the workingman to the aid or provident funds; (3) materials furnished in accordance with the conditions authorized by articles 2 and 3; (4) advances of cash made to the employee, but not in excess of one-fifth of the wages. The purchase price of a lot sold to the employee for the purpose of being built upon is considered as an advance.

8. Except in the case of materials furnished in relation to the trade (*commerce*) exercised by the employee, the action of the employer, director, overseer, foreman, employee of a public or private administration, or head or subhead of an enterprise having for its object the payment of material furnished under conditions other than those indicated in articles 2 and 3, will not be allowable.

9. Until the contrary is proved, anything furnished by the wife or

a The law of June 15, 1896, concerning shop regulations added to this section the following clause, "also under the head of indemnities for badly-made work, the improper use of materials, or deterioration of materials, raw materials, or products." This law also provides that "the total fines imposed per day upon a workingman must not exceed one-fifth of his daily wages. The amount collected in fines must be employed for the benefit of the workingmen."

children of the employer, director, overseer, foreman, employee of a public or private administration, or head or subhead of an enterprise, is presumed to be made by the employer himself, the director, overseer, foreman, employee of a public or private administration, or head or subhead of an enterprise. In the same way, all material furnished to the wife or children of an employee living with him is presumed to be made to the employee himself.

10. The employer who breaks, or causes any of his agents to break, any of the provisions of articles 1 to 7, inclusive, will be punished by a fine of from 50 to 2,000 francs (\$9.65 to \$386).

Directors, overseers, foremen, employees of a public or private administration, and heads or subheads of industrial enterprises who commit the same infractions will be punished by the same fines. However, if they have acted under instructions of their employer or of some one having authority over them, and themselves have no personal interest in the matter, they will only be subject to fines of from 26 to 100 francs (\$5.02 to \$19.30), the payment of which may be enforced against the employer without the latter having any right of recourse to the person convicted.

All action in reference to the infractions of the law as set forth in this article must be taken within 6 months from the day upon which the infraction took place. (a)

11. Book I of the Penal Code, without excepting chapter 7 and article 85, is applicable to the infractions above mentioned.

12. The present law does not relate to agricultural workers, nor domestics, nor in a general manner to workingmen lodged and boarded at the homes of their employers. (b)

13. The present law will go into force December 31, 1887.

The foregoing law is largely self-explanatory. It is only desirable to call special attention to one feature. In order that the prohibition of the payment of wages in other than money or as limited in the act might not work a positive injury to the workingmen if rigidly adhered to in all cases, the law gives to the permanent deputations of the provincial councils the right to authorize employers to deduct from the wages of their employees charges for the supply of food, clothing, and fuel, provided these articles are furnished at a price not exceeding their cost. The provincial councils may exercise their discretion in granting these permissions, and may impose such conditions as they deem proper. The important feature to be here noted is that the policy was pursued of intrusting this matter to a competent board, rather than of attempting to regulate in detail by law the circumstances under which such permission should be granted. The employees also have an

a The following paragraph was here inserted by the law of June 17, 1896:

Notwithstanding any contract to the contrary, the workingmen shall always have the right to control the weighing, measuring, or other operations necessary for determining the quantity or quality of the work which is furnished them and thus far fixing the amount of their wages. Whoever hinders the workingmen in exercising this control will be punished in accordance with paragraph 1 of article 10. All action in respect to this infraction must be taken within 6 months, in conformity with paragraph 3 of article 10.

article of the law of June 17, 1896, given in note a, however, applies to all men.

opportunity of expressing their opinion through the councils of industry and labor, as these bodies, when they exist, must always be consulted before definite action is taken.

ARBITRATION TRIBUNALS: COUNCILS OF PRUDHOMMES.

The councils of prudhommes, in Belgium, originated in the French law of March 18, 1806, which, while primarily enacted for the purpose of creating such a council at Lyons, also provided that similar bodies might be constituted by decree elsewhere. In pursuance of this law, councils were first created in Bruges in 1809 and in Ghent in 1810. From this beginning, the system gradually spread over the Kingdom.

The law regarding these councils has been changed a number of times, notably by acts passed April 9, 1842, and February 7, 1859. The organization and work of the councils were thoroughly investigated by the labor commission of 1886. As the result of its recommendation, a new organic law was passed July 31, 1889, which repeals all former legislation and places the councils upon a somewhat new basis. This law, as slightly modified by an act passed November 20, 1896, constitutes the law now in force. The law of 1896 provided that the King might modify, by decree, the provisions of the organic law of 1889 concerning the procedure to be followed at elections. In accordance with this provision the King, by a royal decree dated January 8, 1897, replaced these provisions by others contained in his decree. This decree should therefore be considered in conjunction with the laws of 1889 and 1896 in stating the legislation now existing in reference to councils of prudhommes. Following is a summary of their legal provisions:

Councils of prudhommes are created for the purpose of settling by means of conciliation if possible, and when this can not be done, by means of a judicial decision, disputes that may arise between heads of industrial establishments and their employees, or between the employees themselves, within the limits and according to the methods provided by the present law. They shall also have certain other functions as specially conferred upon them by law.

By heads of industrial establishments (*chefs d'industrie*) are understood manufacturers, owners, general directors, and administrators of industrial establishments or of industrial arts; contractors who employ their workingmen in an industrial work; operators, engineers, directors, or subdirectors of mining work, quarries, and establishments for the manufacture of iron and steel and other metals, and proprietors and persons equipping maritime fishing vessels.

By employees are meant journeymen, foremen, workingmen employed in the shops or on the account of employers, and the owners and fishermen constituting the crews of maritime fishing vessels.

A council of prudhommes can only be created by law, which fixes

the boundaries of its jurisdiction. The law may establish in the same district several councils relating specially to certain trades or industries, or certain groups of trades and industries, when such trades or industries are of sufficient importance to warrant the creation of special councils for their benefit.

A council may be divided into a number of special chambers. The number of members and the composition of each council and its chambers will be determined by royal decrees. Before action is taken the communal councils of the district and the permanent deputation of the provincial council must be given an opportunity to express their opinions.

Councils of prudhommes must consist of at least 6 members, exclusive of their president and vice-president, if they are selected from outside the councils. The chambers of a council must be composed of not less than 4 members.

Members of the councils and the special chambers must be elected half by the heads of industrial establishments and half by the employees, as above defined. Not less than 4 alternates (*suppléants*) must be chosen for each council.

A special electoral body must be constituted for each council, composed of electors belonging to the industries over which the council has jurisdiction. To be an elector one must be either a head of an industrial establishment or employee as above defined, a citizen of Belgium, at least 25 years of age, a resident in the district of the council during at least the preceding year, and must have followed his trade or industry there during at least the preceding 4 years. Persons, however, who are not residents of the district, but fulfill the other conditions, may, upon their request, be placed upon the list of electors.

The following persons are prohibited from being electors: Those who have been deprived of the right of suffrage, in consequence of a criminal conviction; those who have been declared bankrupt, or who have made over their property to another party, as long as their creditors are not fully paid; those who are notoriously known as keepers of houses of prostitution or debauchery; and those who have been condemned to punishment for crime or convicted of theft, swindling, abuse of confidence, or attempt against morals. The prohibition in the last case continues for 50 years from the date upon which the person was convicted of a criminal offense, or ten years in case the offense was a petty one (*peine correctionnelle*).

The list of electors remains in force until the next regular revision, which must be made every 3 years by the board of aldermen (*collège des bourgmestre et échevins*). These lists must be prepared by groups of industries and in alphabetical order. They must show for each person his name, the place and date of his birth, the date at which he

was naturalized or became a Belgian, if necessary, and the trade or industry that he follows. Copies of the lists, as first prepared, must be posted by the authorities and sent to the commissioner of the arrondissement on the 15th of February. Any complaints in respect to them must be addressed to the board of aldermen prior to March 1. This body, after considering these complaints, will prepare a revised list. Where names are added or struck from the lists, the reasons for such action must be given and the names posted from March 4 to March 12. Where names which were on the old or the provisional lists are removed, the persons affected must be informed of such action, with the reasons for it, within the 48 hours following.

Copies of these lists, together with all complaints received and all papers by means of which the persons registered have justified their rights or on account of which their names were stricken off, must be sent by the communal authorities to the commissioner of the arrondissement within 24 hours after the lists are closed, and this officer must acknowledge their receipt and enter the fact in a special register. A copy of the list must also be retained at the office of the secretary of the commune and another one be sent to the governor.

The lists will be printed or otherwise mechanically reproduced whenever 100 copies are applied for. Where this is done every person making application prior to February 1 must be furnished with a copy. The price to be paid for them will be fixed by the communal authorities but must not exceed 1 franc (\$0.19) per copy where the list does not comprise more than 1,000 electors or 1 franc (\$0.19) additional for every 1,000 names beyond this number.

All persons have the right to inspect or copy the lists and other documents at the office of either the secretary of the commune or the commissioner of the arrondissement.

An appeal from the action of the communal authorities in respect to the making up of the list of electors may in all cases be made by any interested party to the court of appeals of the district. This action must be taken not later than March 31. Lists of all appeals must be prepared by the commissioner of the arrondissement and copies of them be posted in his office and sent to the communal authorities to be posted by them. Any person enjoying full civil and political rights may within the 10 days following such posting intervene in a dispute by means of a request to the court of appeals sent through the commissioner of the arrondissement. This latter officer may himself intervene by virtue of his office. The complainants and those whose registry is demanded must file their written arguments not later than April 30, and the defendants in the case of demands for the removal of their names from the lists must file their answers and arguments not later than May 31. The papers in the case must be open to the inspection of the parties at any time during office hours.

By July 5 all the papers relating to the electoral lists, as well as the lists themselves, must be sent to the court of appeals by the commissioner of the arrondissement. An appeal may be taken from the court of appeals to the supreme court, in which case the registrar of the latter body must inform the registrar of the lower court of the action taken upon such appeal. Not later than October 15 the registrar of the court of appeals must send to the governor a statement of the result of all appeals. This officer will then promulgate by decree the final list of electors in accordance with the decisions rendered by the courts. These lists must enter into operation before March 1 following the revision.

Any elector 30 years of age is eligible as a member of a council. Heads of industrial establishments who have retired from business and former employees, provided they fulfill the other conditions of electors, may also be called to take part in the councils; in no case, however, shall such persons constitute more than one-quarter of the membership of a council. This proportion applies separately to the employer and the employee representatives. A person following the trade of innkeeper (*aubergiste*) or liquor dealer, or whose wife keeps such an establishment, is, however, ineligible, as well as persons who have been convicted of criminal offenses or sentenced to imprisonment for more than 6 months. Two persons exercising authority in the direction of the same industrial establishment or two employees in the same shop must not be elected members of the same council, nor two persons related to each other as closely as the second degree.

In general, elections take place by communes, but when there are less than 30 electors to a commune a number of contiguous communes can be grouped in a single voting district by royal decree.

Notice of all elections, indicating the number and occupation of prudhommes to be elected, must be given to the electors by means of circulars posted and sent to each elector. Where a second ballot is necessary at least 13 days must elapse between the two counts.

The employer and the employee electors meet in separate assemblies and select their delegates.

When the number of electors in a voting district exceeds 400, the governor must divide them into sections, so that not more than 400 nor less than 30 electors are in any one section. This division into sections must be by industries and in alphabetical order of the names of the electors. The first section will be called the principal section, and to a certain extent will have charge of elections in all the districts.

Each electoral section must be presided over by a member of the communal council of the place at which the election takes place, as designated by the board of aldermen. These presidents must appoint tellers and secretaries, and all must make oath to perform their duties faithfully.

Candidates must be nominated at least 15 days before the date fixed for the election by a paper filed with the president of the principal section. To be valid, nominations must be signed by at least 25 electors in districts having over 1,000 electors, and by at least 10 in districts having a smaller number. They must indicate the names, addresses, and occupations of the persons proposed and the electors making the nominations, be dated, and state the special duties desired by the candidates.

Candidates must accept their nomination either verbally by presenting themselves to the president of the principal section, accompanied by two witnesses, or in writing to that officer.

At the expiration of the time fixed for the making of nominations the principal sections of the employer and employee electors, respectively, must prepare and post in all the communes of the district lists of the candidates that can be legally voted for. If there is but one list of candidates proposed, the principal section will declare the persons there named to be duly elected.

Where there are more than one list a ballot will be taken by list (*scrutin de liste*). No person will be declared elected unless he receives a majority of the votes cast. If all the members of the council are not elected on the first ballot, a list will be made of the candidates in each of the classes who have obtained the largest number of votes, including, when possible, twice as many names as there are vacancies to be filled. Upon the second ballot for persons contained in this list, those receiving a plurality will be declared elected. In the case of a tie vote the older candidates will be preferred.

Upon the conclusion of an election all the records, lists, and ballots must be sent to the governor, and a copy must be filed at the office of the commune where the council has its headquarters, so that it may be freely inspected. Protests against the certification of the election of any member may be made to the court of appeals within the 10 days following the report, and a further appeal may be taken to the supreme court. When an election is partially or totally annulled the proceedings which were declared invalid must be recommenced.

One-half of the membership of the councils of prudhommes and their alternates must be renewed every 3 years, an equal number of employers and employees going out each time. Members are reeligible.

Whenever through death or resignation the number of members of either category is reduced by more than one-half, special elections must be held to fill the vacancies, each person so elected serving only during the unexpired term of his predecessor.

Any member who absents himself from the meetings during two consecutive months without the permission of the council or without a legitimate reason, or who ceases to possess the necessary qualifica-

tions during his term of office, will be removed from the council by the court of appeals of the district. Such removal may be made either at the instance of the council or at the instance of any party appearing before the council. When the removal is requested by a vote of the council notice must be sent to the member in question, who, if he sees fit, may contest the matter. The court of appeals must render its decision within 8 days, and inform the president of the council and the governor of the province of its action. An appeal may be taken by either party to the supreme court.

The president and vice-president of each council are appointed by the King by royal decree, the selections being made from lists prepared by the employer and employee members, respectively. One name must be taken from each list. The president and vice-president need not be members of the council. They serve for 3 years and are reeligible.

When special committees are formed within a council they shall elect their own presidents and vice-presidents from among their number.

In all cases of a tie vote the president shall decide.

Each council must be provided with a registrar (*greffier*) appointed by a royal decree from a double list of candidates prepared by the council.

The method of electing and organizing the councils having been briefly described, attention will now be turned to their functions and the manner in which they must be performed. The most important duty of the council is to act as a labor court for the adjustment of minor disputes between employers and their employees, and in certain cases between the employees themselves.

The extent of the powers of the councils is thus set forth by the law:

The councils of prudhommes have jurisdiction concerning disputes either among employees or between employers and their employees of either sex regarding any matter relating to work done, labor, or wages in the branches of industry for which the councils are created. Their territorial jurisdiction is fixed by the locality of the factory, and in the case of houseworkers, by the place where the contract is made.

Parties to a dispute may also at any time by common accord refer the matter to a council of prudhommes for conciliation, even though the matter does not fall within the jurisdiction of the council. In these cases the parties must make a formal request in writing for the intervention of the council. This provision also applies to disputes between heads of industrial establishments.

The competence of councils regarding matters within the scope of their powers extends to all disputes, no matter what the amount in dispute. Where the claim does not exceed 200 francs (\$38.60) in value their decision is final. Where a larger sum is involved an appeal may

be taken to the tribunal of commerce, except in the case of mines, where the civil courts have jurisdiction. No appeal from interlocutory orders is permitted except in connection with an appeal from the final judgment of the council.

Where a claim is opposed by a counter claim, and each one is susceptible of being decided finally by the council, no appeal can be taken. When one of the claims, however, can be appealed, both can be appealed.

The effort must always be made to settle disputes brought to the attention of the councils by means of conciliation. For this purpose each council must create within its body a board of conciliation to consist of two members, one an employer and the other an employee. Alternates must be selected to act in the absence of the regular members. The board will also be assisted by the registrar. The term of office of members is 3 months, but members are reeligible.

All disputes must first be brought before this board. If the latter fails in its efforts to conciliate the parties the matter is then turned over to the full council. The board must hold at least one meeting each week. Extra meetings may be called by the president of the council, and the latter may, if he deems it advisable, send the parties before two members other than those who compose the board of conciliation.

When a dispute is brought before the council another attempt at conciliation must be made before further action is taken.

The parties to a case, either before the board of conciliation or the council, are summoned by the registrar at least one day before the session, by means of a letter indicating the place, day, and hour when they are to appear. If they fail to appear they are summoned by a constable (*huissier*).

When parties are prevented from attending personally, the council may authorize them to be represented by one of their clerks, superintendents, foremen, or by a workingman.

The summons must indicate the place, hour, day, month, and year of the appearance, and the names, occupations, and actual residences of the parties, and must give a brief statement of the object or motive of the complaint.

The summons may be made in person or be delivered at the residence of the defendant, and if no one is found there, it must be left with the mayor or one of the aldermen. At least one day must elapse between the delivery of the summons and the day of the appearance of the party, if he lives within a radius of 3 myriameters (18.6 miles). If he lives farther, one additional day is allowed for each 3 myriameters (18.6 miles). In urgent cases the president may order the immediate appearance of the parties.

The president directs all meetings. The parties must express themselves with moderation, and the same order and respect must be main-

tained as in a court of justice. Any infractions in this respect may be punished by a fine not exceeding 10 francs (\$1.93). In case of grave insult or disrespect the council may sentence the guilty party to imprisonment for not more than 3 days. Persons in the audience who cheer or create any disturbance must be expelled by the president, and if they resist they may be imprisoned during 24 hours. If the disturbance is accompanied by acts of violence, the guilty parties must be arrested by order of the president and turned over to the proper authorities.

In cases of urgency the council or the board of conciliation may order that such steps as are necessary be taken to prevent the removal or destruction of the object of the claim. Either the council or the board of conciliation may send one or more members to verify allegations on the spot, and if necessary hear testimony there. In this case the registrar must accompany the members and take the minutes of the inquiry.

If the parties disagree as to the facts the council of prudhommes may summon witnesses to establish them. The witnesses must be sworn, and state their names, ages, places of residence, and relations to the parties to the cause.

The witnesses must be heard separately in the presence of the parties if they appear. The latter must make any objections they may have to the witnesses before their testimony is taken.

Witnesses must not be interrupted while they are testifying, but at the close of their testimony they may be cross-questioned by the parties through the president.

In cases which may be appealed, the registrar must take down the testimony in writing, and the written testimony must then be read to the witness and be signed by him, the president, and the registrar. Judgment must then be rendered either immediately, or, at the latest, at the next session.

In cases where final judgment may be rendered the testimony is not put in writing, but the name, age, residence, etc., of witnesses and the results of their testimony must be announced in the sentence.

Members of the council may be excluded from service if they have a personal interest in the case; if they are related to the parties; if there have been criminal proceedings between them and any of the parties or their relations; if a civil case is pending between them and either of the parties; if they have given any written advice in the case, or if they are either employers or employees of either of the parties to the case.

Persons desiring to exclude members of the council from service must hand to the registrar a formal declaration setting forth their reasons. The member objected to must within the next 2 days attach to this declaration his written answer acquiescing in or contesting his disqualification. When the member contests his exclusion, or fails to answer, the matter must be referred to the state's attorney for the district, who must render his decision within 8 days.

If on the day appointed in the summons one of the parties does not appear, judgment must be rendered by default, but the party against whom judgment was rendered may, upon giving formal notice of his objection within 8 days, have an opportunity to show cause why the judgment should not stand. If judgment by default is taken upon a second hearing, no further action can be taken by the person against whom the judgment is rendered.

The provisional execution of judgment may be ordered with or without security up to 200 francs (\$38.60). Over 200 francs (\$38.60), judgment can not be executed unless security is given.

All sentences must be entered upon the record, and must be signed by the registrar and by the president. This entry must contain the names of the members, the names, occupations, and residences of the parties, as well as a summary of the complaint, the defense, the judgment, and the reasons therefor.

The party losing a case must be formally notified of the judgment pronounced by the council, and the judgment may be executed within 24 hours.

Appeals may be taken on questions of jurisdiction, or on matters over which, as above described, the councils decide only as courts of first resort. If the council declares itself competent, the appeal can not be taken until after final judgment has been rendered.

Costs are assessed against the defeated party.

The councils must hold at least two regular meetings each month, and special meetings may be called by the president whenever the circumstances are such as to render this action desirable. No session shall take place unless there is an equal number, not less than 2, of employer and employee members present. When the president and vice-president are selected from outside the membership of the council they are not taken into account in this connection. Either the president or vice-president must be present at all meetings.

Whenever the number of employer and employee members is not the same, the council must designate a sufficient number of the more numerous class to retire in order that an equality may be established. In case of any disagreement the youngest members are excluded.

If at the time designated for a meeting to consider any matter a sufficient number of members are not present, the meeting must be adjourned to another day. The registrar of the council must then summon the members to a new meeting by means of a notice in writing sent to their address at least 3 days before the meeting. In this notice attention must be called to the impossibility of holding a meeting owing to the lack of sufficient members, and to the provisions of the law in reference to delinquents in such cases.

If the same condition of affairs exists at the second meeting, the

council must prepare a report showing this fact and send it to the state's attorney (*procureur général*). The absent members will then be summoned before the court of appeals to explain their failure to attend the meetings. When a sufficient reason for their neglect is not given, they may be condemned to pay a fine of from 26 to 200 francs (\$5.02 to \$38.60), or to imprisonment from 3 to 8 days, or both. Members thus punished will be considered as removed from the council.

After the council has failed the second time to secure the attendance of members for the hearing of any dispute, either of the parties may then take the matter before a justice of the peace, from whose action an appeal may be taken to the commercial or civil courts, according to the nature of the case, and where the matter in dispute exceeds 200 francs (\$38.60) in value.

The councils of prudhommes, in addition to their function of adjusting civil disputes in relation to labor as above described, have certain functions in the nature of police powers. Without interfering with the power of the ordinary tribunals to prosecute such offenses, the councils may, by way of discipline, suppress acts of bad faith, grave neglect, or other acts tending to disturb the order and discipline of workshops. For this purpose fines not to exceed 25 francs (\$4.83) may be imposed. An appeal from this sentence may be taken to the lower civil court of the arrondissement. To take advantage of this right a formal declaration of appeal must be made within 8 days from the imposition of the fine.

Finally, these bodies may be called upon by the King to serve in an administrative capacity as advisory boards to give their opinions concerning any questions relating to labor or industry that may be placed before them.

The members of the council are allowed a per diem while in attendance upon council meetings, the amount of which will be determined in each province by the permanent deputation of the provincial council, according to the average value of a day's labor. Travel pay is allowed the members if they live more than 5 kilometers (3.1 miles) from the seat of the council, the rate being determined by royal decree.

The registrar receives an annual salary from the State as fixed by the decree instituting the council. He must pay all expenses for paper, records, and writing material and miscellaneous minor office expenses. A royal decree determines the rights and emoluments of the registrar, the salaries and allowances of constables (*huissiers*), as well as fees allowed experts who testify at hearings. No charges can be made by registrars or constables other than those prescribed, under penalty of criminal prosecution.

The expenses of the councils are paid by the communes within the jurisdiction of each council in proportion to the number of working

people employed in each commune, the apportionment being made by the permanent deputation of the provincial council. The rooms necessary for holding the meetings of the councils, as well as the places of confinement of persons under arrest, must be furnished by the communes where the councils have their sessions.

COUNCILS OF INDUSTRY AND LABOR.

The Belgian councils of industry and labor are unique institutions, and as such deserve careful attention. To a certain extent they serve the same purpose as the guild organizations of Germany and Austria in respect to the handicraft trades. As M. Morisseaux, the director of the Belgian labor bureau, expresses it, "each council of industry and labor is in reality a small industrial parliament which occupies itself with the common interests of employers and employees, according to a programme traced in advance by the governmental authority. They are consultation bodies which sometimes act as conciliation committees."

The origin of these councils is found in propositions for the purpose of putting into execution the recommendations of the labor commission for the organization of a system of tribunals for the arbitration or conciliation of industrial disputes. The measure proposed by the labor commission had in view simply the adjustment of labor difficulties. During its course through Parliament, however, the scope of this bill was very materially widened, so that in the law enacted the proposed councils of labor, instead of being intrusted simply with the settlement of labor disputes, were given other important duties concerning labor matters. They were, in fact, made bodies, consisting of duly elected representatives of both employers and employees, for fixing within certain limits the conditions of labor.

The law creating these councils was passed August 16, 1887. Following is a summary statement of its provisions:

There shall be created in every locality in which its utility is demonstrated a council of industry and labor. This council shall have as its mission the consideration of the mutual interests of heads of industrial establishments and employees, in order to prevent and, if required, adjust disputes that may arise between these two classes. A council may divide itself into as many sections as there are distinct classes of industries in its district, care being taken to unite in each those persons most competent to judge concerning matters pertaining to the industry to which it relates.

Councils shall be created by royal decree, either upon the direct initiative of the King or upon the request of the communal council or of the employers and employees who are interested. The decree shall in each case fix the boundaries, the industries to which the council relates,

and the number and nature of the sections. Each section shall be composed of an equal number of employers and employees, as these classes are defined by the organic law of the councils of prudhommes. These definitions are as follows: By heads of industrial establishments (*chefs d'industrie*) are understood manufacturers, owners, general directors, and administrators of industrial establishments or of industrial arts; contractors who employ their workingmen in an industrial work; operators, engineers, directors, or subdirectors of mining work, quarries, and establishments for the manufacture of iron and steel and other metals, and proprietors and persons equipping maritime fishing vessels. By employees are meant journeymen, foremen, workingmen employed in the shops or on the account of employers, and the owners and fishermen constituting the crews of maritime fishing vessels.

The number of members in each section shall be fixed by the decree creating the council, but must not be less than 6 nor more than 12.

The manner in which the members of the councils are selected is only determined in a general way by the law. The details were first fixed by a royal decree issued August 15, 1889, which was replaced by a royal decree dated March 10, 1893, the latter being subsequently modified in minor particulars by decrees dated March 26, 1897, and April 11, 1897.

As regards the election of the workingmen representatives, the law simply provides that the workingmen shall choose from among their number delegates and alternates to represent them in the sections according to the manner and conditions fixed by the law concerning councils of prudhommes. The order of 1893 gives these conditions and methods in great detail. In order to be an elector the person must be a workingman as above defined, a citizen of Belgium, at least 25 years of age, and must have been actively employed during at least the preceding 4 years in the district of the council in one of the industries or trades to which that body relates.

A separate electoral body shall be constituted for each of the sections of a council, which shall be composed of electors belonging to the industry or trade to which the section relates.

The communal authorities must prepare alphabetical lists of electors for each electoral body separately. These lists must show for each person his name, the place and date of his birth, the date at which he was naturalized or became a Belgian, if necessary, and the trade or industry that he follows. Electors appear upon these lists according to their place of work, without regard to where they may reside.

Copies of these lists must be posted by the authorities, and also sent to the permanent deputations of the provincial councils. All disputes regarding these lists must be addressed to the permanent deputation within 10 days from the date of their posting, and this body shall decide the matter. The revised list must be prepared within 42 days

from the posting of the original list. These definite lists shall be deposited at the office of the secretary of the commune in which the council has its headquarters, and copies of them shall be sent to the secretaries of the other communes. The lists thus prepared shall remain in force until the next regular triennial revision.

To be eligible as a member of a council, the workingman must be an elector and not less than 30 years of age. The following persons are, however, ineligible both as electors and members: Those who have been deprived of the right of suffrage in consequence of a criminal conviction; those who have been declared bankrupt, or who have made over their property to another party as long as their creditors are not fully paid; those who are notoriously known as keepers of houses of prostitution or debauchery, and those who have been condemned to a criminal punishment or convicted of theft, swindling, abuse of confidence, or attempt against morals.

The communal authorities must give at least 10 days' notice of the holding of an election to the electors in their district in conformity with the instructions of the permanent deputation of the provincial council. This notice shall be given by means of notices posted and circulars sent to the electors.

An electoral college may, if necessary, be divided into as many sections as there are delegates to be elected. In such case the division shall be made according to the alphabetical list of electors. No section shall embrace more than 400 electors; not more than 5 sections shall meet in the same building, and each section shall have its own meeting place; one of the sections shall be designated as the chief section by the board of aldermen. Each of the sections shall be presided over by a member of the communal council of a commune included in the district as designated by the board of aldermen; or, if necessary, other persons may be designated for this service. The president of the principal section shall designate the tellers for all the sections, and the secretaries. The presidents, secretaries, and tellers must all make oath to perform their duties honestly and properly.

Candidates must be proposed at least 5 days prior to the election. Their nomination must be signed by not less than 10 electors in districts which embrace more than 200 electors, and by 4 electors in other districts. An alphabetical list of candidates shall be prepared. The latter must signify their acceptance of the nomination. A list of these shall be immediately posted. If only one list of candidates is proposed, these persons shall be declared to be duly elected, otherwise the principal section shall prepare and print the ballots, and the use of any other is prohibited.

Voting shall take place by list (*scrutin de liste*). No one shall be declared elected on the first ballot unless he receives two-thirds of the number of votes cast. If a sufficient number are not elected upon this

ballot, a list shall be prepared of those candidates receiving the most votes. This list must, if possible, contain twice as many names as there are vacancies to be filled. Those persons receiving a plurality of the votes cast at the second ballot shall be declared elected. In case of a tie vote the eldest shall be preferred.

A report of all elections must be prepared and sent to the permanent deputation of the provincial council within the 3 days following the voting. A copy must also be deposited at the secretary's office of the commune in which the headquarters of the council is situated, so that any person interested can inspect it.

Any complaint concerning an election must be formulated within 8 days after the filing of this report and transmitted in writing to the provincial council or mayor of the commune in which the headquarters of the council is situated. These complaints shall be transmitted within 3 days to the permanent deputation of the provincial council. The latter body must render its decision within the following month. The governor may within the following 8 days appeal the matter to the King, who must render a final decision within the ensuing month.

If there is in the district of any council a larger number of employers than is required as employer representatives on the council, the employers must proceed to an election of representatives in the same manner as is provided for the selection of workingmen representatives. If the number of employers in the district is insufficient, employers in similar industries taken from the neighboring districts will be designated by the permanent deputations. Alternates must in all cases be named.

The membership of councils must be renewed every 3 years. The term of service of both employer and workingmen representatives is 3 years but members are eligible for reelection. In case of the death or resignation of a member or his departure from the district or abandonment of the industry which was followed by him at the time of his election, an alternate shall be required to serve in his stead. The selection of these alternates for this duty shall be according to the number of votes they received when they were elected. If a delegate fails on three occasions to answer a summons he shall be considered as having resigned.

All sections must unite at least once a year on the day and at the place indicated by the order of the permanent deputation of the provincial council. The sections may also be convoked in extraordinary session by the permanent deputation upon the request of either the employers or employees.

Each section shall choose from among its members a president and a secretary. When a president is not elected by a majority vote, or when elected is absent for any reason, the section shall be presided

over by the eldest member present. Under similar circumstances the youngest member shall perform the duties of secretary.

The purpose of these councils, as has been indicated, is twofold, viz, serving as committees of conciliation and arbitration in labor disputes, and furnishing a means by which both employers and employees may give their opinions concerning proposed measures affecting industry and labor. Their duties, as respects the adjustment of labor difficulties, are set forth in the following brief paragraph: "When the circumstances seem to require it, the governor of the province, the mayor of the commune, or the president, shall, upon the request of the employers or employees, convoke the section relating to an industry in which a conflict seems imminent. This section shall use its efforts to terminate the difficulty. If an agreement can not be reached, a summary report of the proceedings must be published." No attempt, it will be observed, was made by the law to determine the methods to be pursued in attempting the settlement of disputes. The councils also have no power to enforce their decisions. The only coercion that they can exert is such as may result from the publicity given to their action. The main difference between these councils acting as conciliation committees and the councils of prudhommes is that the latter consider questions arising from a violation of contracts, and their action must be based upon such agreements, while the former deal with questions in which no contract is presumed, the object in view being rather to bring about the formation of new contracts on the best possible terms. Also, the decisions of the councils of prudhommes are binding, whereas, as has been stated, the opinions of the councils of industry and labor may be accepted or not, as the parties elect.

Turning now to the advisory functions of these bodies, the law provides that "the King may call together the council of any district in full assembly in order that it may give its advice concerning questions or proposals of general interest relative to industry or labor which he considers it desirable to submit to it. The King may also assemble a number of sections belonging to the same or different localities. Such an assembly shall elect its own president and secretary. Where such officers are not elected by a majority vote, or when elected are absent for any reason, the positions shall be filled by the eldest and youngest member present, respectively."

The Government exercises an effective control over the proceedings of the councils. The royal decree convoking a full assembly and the orders of the governor or permanent deputations convoking a section determine the order of business and fix the duration of the session, and no subject foreign to the business of the day can be considered. The Government may also appoint a commissioner to assist at the full meetings, to make such communications as it desires, and to take part in the debates concerning the questions or measures proposed.

When the employer members and the workingmen members are not equal in number, the youngest members of the more numerous class shall have only a consultative voice in the proceedings. The meetings shall take place with closed doors, but the council or section can decide whether or not the report of its proceedings shall be made public.

It is the duty of the communes in which the meetings are held to furnish the necessary quarters. A daily indemnity, the amount of which shall be fixed by the permanent deputation and carried on the provincial budget, shall be paid to members during their attendance upon the meetings.

The foregoing law, the chief provisions of which have been given, provided that councils should be created upon the request of the communal councils, or of employers and employees, or upon the direct initiative of the King. It was hoped that the local authorities and persons interested would move in the matter. The Government, therefore, waited 2 years after the promulgation of the law for such action. These bodies failing to take the initiative, the central government, after inviting the communal councils to give their advice on the subject, created 17 councils in various industries during the month of December, 1889. Other councils have been created in subsequent years.

The function of these councils as boards of conciliation or arbitration has been exercised to a limited extent only. Their importance as consultative chambers regarding industrial and labor matters has, however, steadily increased. The councils have not only been frequently summoned to give their opinion concerning proposed legislation, but, as has elsewhere been noted, they are given important powers in respect to the execution of the law of December 22, 1889, concerning the employment of women and children; the law of July 2, 1899, concerning the protection of the health and lives of industrial employees, and the law of August 16, 1887, concerning the payment of wages of workingmen. The effect of these provisions is that the workingmen, through these councils, can exercise an important influence in determining the conditions under which they shall labor and in the framing of new legislation.

To complete the organization of the councils of industry and labor, a higher council of labor (*conseil supérieur du travail*) was created by the King by a royal decree issued April 7, 1892. The object of this council, as stated by the minister of agriculture, industry, and public works in his report to the King, is "to give to the councils of industry and labor a center of action by creating a permanent body charged with the preparation of questions to be submitted to the various councils of industry and labor and to present to the Government general propositions summing up their conclusions." The local councils thus serve as bodies through which the employers and employees can

express their opinions concerning matters relating to labor, while the higher council formulates the questions to be submitted to them, takes account of their action, and drafts the bills to be submitted to the Parliament, or recommends other lines of action.

This body has played an important part in the framing of recent labor legislation. It is attached to the ministry of industry and labor, and is composed of 48 members, 16 of whom are employers, 16 are workmen, and 16 are persons who have a special knowledge of economic and labor matters. The council draws up rules for its own management. It is governed by a president, 3 vice-presidents, and a secretary. It may form subsections for particular purposes. The president, senior vice-president, and secretary must be members of each such subsection. All questions are decided by a majority vote. No resolution can be passed unless half the members are present. Each member receives 6 francs (\$1.16) for every meeting he attends. The report of the proceedings is published by the minister of industry and labor.

STRIKES.

Workingmen, as has been shown, have the full right to form associations having in view the betterment of their condition. This right includes that of forming temporary coalitions for the purpose of enforcing their demands; in other words, of engaging in strikes. While a workingman can not be punished for the mere act of engaging in a strike, abuses of this privilege are punishable. For the purpose of making the law in relation to this point more definite a special act was passed May 30, 1892. A translation of this law, which is very brief, follows:

Any person who, for the purpose of compelling the raising or lowering of wages or of making an attack upon the free exercise of industrial work or labor, commits acts of violence, offers injuries or threats, imposes fines, prohibitions, interdictions, or proscriptions of any kind, either against those who work or those who furnish others with employment, shall be punished by imprisonment of from one month to two years and a fine of from 50 to 1,000 francs (\$9.65 to \$193), or one of these penalties only.

The same penalty shall be imposed upon those who make an attack upon the liberty of employers (*maîtres*) or workmen, either by congregating near establishments in which work is being carried on or near the dwelling places of those who direct the work, or by perpetrating acts of intimidation toward workmen who are going to or returning from work, or by causing explosions near establishments in which work is being carried on or in localities inhabited by workmen, or by destroying the fences (*clôtures*) of establishments in which work is being carried on or houses or lands occupied by workmen, or by destroying or rendering unfit for the use for which they are intended tools, instruments, apparatus, or engines of labor or industry.

BUREAU OF LABOR.

Provision was first made for the creation of a special service for the collection of statistics in relation to labor by the royal decree of November 12, 1894. This decree provided for the creation of a bureau under the ministry of agriculture, industry, labor, and public works, to be known as the Office du Travail. The duties of this bureau were specified in considerable detail, but in general cover the same ground as those of the French, English, and American labor bureaus. The bureau was directed to publish the results of its inquiries in special reports, and also to publish a monthly review giving information concerning labor conditions, nonemployment, strikes and lockouts, arbitrations, prices, and a large number of other subjects.

In 1895 a separate department of industry and labor was created by the royal decree of April 12 of that year, and the Office du Travail made a bureau of that department. In addition to special reports this bureau publishes a monthly review (*Revue du Travail*), begun January, 1896; an annual compendium of labor laws, domestic and foreign, begun in 1897, and the annual reports of the inspectors of factories.

SWITZERLAND. (a)

In examining the industrial legislation of Switzerland one has to deal with a situation similar in many respects to that presented when a like study is attempted for the United States. Each of the Cantons (b) constituting the Helvetian Confederation, like our own States, has the general power of regulating its domestic affairs. — Article 3 of the Federal constitution reads: "The Cantons are sovereign so far as their sovereignty is not restricted by the Federal constitution, and as such they may exercise all rights which are not delegated to the Federal powers." For this reason, and because of the difficulty of securing the necessary official documents resulting from this fact, the

a In the summary of the laws of Switzerland here given use has been made of copies of laws and reports kindly furnished by the Federal department of industry of Switzerland, and the following works:

Royal Commission on Labor, Great Britain. Foreign Reports: Switzerland, 1893. *Annuaire de la législation du travail*. 1^{re} année, 1897; 2^e année, 1898. Office du Travail, Belgique, 1898 and 1899.

Publications of the French Labor Bureau, notably the report, *Hygiène et sécurité des travailleurs dans les ateliers industriels*, 1895.

Conrad's *Handwörterbuch der Staatswissenschaften*, and the two supplemental volumes published in 1895 and 1897.

Les lois protectrices du travail en Suisse, par H. Wegmann. A report made to the Congrès International de Législation du Travail, à Bruxelles, 1897.

Notes de Suisse: Les lois protectrices du travail, par Émile Waxweiler. *Revue de l'Université de Bruxelles*, juillet-septembre, 1896.

Social Switzerland, by William H. Dawson. London, 1897.

b Zurich, Bern, Lucerne, Uri, Schwytz, Unterwalden (Upper and Lower), Glarus, Zug, Freyburg, Soleure, Basel (Town and Land), Schaffhausen, Appenzell, Saint Gall, Grisons, Aargau, Thurgau, Ticino, Vaud, Valais, Neuchâtel, and Geneva.

present account of labor laws in Switzerland is not as complete on all points as that of the laws of the other countries whose legislation has been passed in review. Fortunately, however, it is possible to give a fairly comprehensive account of those branches of labor legislation that are of the most importance, viz, protective labor laws, or those relating to the employment of women and children, the protection of the health and lives of employees, inspection of factories, payment of wages, Sunday and night work, apprenticeship, and arbitration tribunals.

The movement for the freeing of industry and labor from the restrictions and privileges that characterized the guild system of the eighteenth century has followed a somewhat different course in the different Cantons. French Switzerland profited by the abolition of guild privileges and monopolies decreed by France in 1791. In the remainder of Switzerland the same result was only gradually accomplished. The political powers of the guilds were abolished early in the present century. Their economic functions, however, were in many cases allowed to remain, though the character of the guilds as close corporations, with restricted membership, was in all cases changed.

The requirement that all persons carrying on a handicraft trade on their own account or employing journeymen or apprentices should be members of a guild was generally in force until 1830, and was not wholly done away with at that time. The constitution of Schaffhausen, adopted in 1831, thus expressly provided for such obligatory membership. The tendency, however, was toward freedom. In 1832 Zurich and Saint Gall promulgated ordinances in which obligatory membership in a guild was limited to certain specially enumerated handicraft trades, and that of Saint Gall further limited this obligation by making it dependent upon the majority vote of the masters in the districts concerned. This decision, moreover, was not binding for more than four years. In the same year (1832) Thurgau repealed her obligatory guild ordinances. In the following year (1833) Zurich began the policy of relieving particular trades from the obligation of compulsory guild membership, which was continued until in 1837 all trades were free. Compulsory guilds were abolished by Lucerne and Soleure in 1834, and Basel Land in 1840. By 1860 guilds were free in Aargau. Compulsory guilds remained the longest in Basel Town. The constitution of 1847 of that Canton provided that guilds could not be made free by legislation, and compulsory guilds, therefore, remained until the adoption of the Federal constitution, in 1874.

For the most part the old guild ordinances were abolished without any laws being enacted to take their place, though there are some exceptions to this statement. All of these, however, and all vestiges of the guild system remaining were swept away by the first part of article 31 of the Federal constitution of 1874, which declared that "the

6. Among other things, they must assure themselves that the apprenticeship instruction is not neglected, and that the employer either himself instructs or causes the apprentices to be otherwise instructed in a gradual and complete way in the profession, art, trade, or branch of trade which is the object of the apprenticeship contract.

7. If in the course of their supervision, or as the result of complaints, they discover acts of abuse, negligence, or bad treatment, they must intervene immediately for the protection of the apprentice, and at the same time notify his parents, guardian, or the commune which has control over him.

8. An employer is prohibited from employing an apprentice without the execution of a written contract setting forth the duration of the apprenticeship, the conditions as regards remuneration and, where necessary, as regards board and lodging, and the reciprocal obligations of the parties, which contract must be signed by the father, mother, or legal representative of the apprentice. This contract must be exhibited to the delegates charged with the supervision of apprentices whenever they request to see it.

9. The employer is likewise prohibited from employing an apprentice in work or services other than those relating to the exercise of his trade, except, however, in exceptional cases or as regards certain work or services sanctioned by usage and permitted by the authorities having the supervision of apprentices.

10. Each apprentice must be allowed during the work period such time as is necessary for the performance of his religious duties or the scholastic instruction required by law.

11. The normal hours of labor per day must not exceed 10 for apprentices from 13 to 15 years, and 11 hours for those more than 15 years of age, inclusive of the time devoted to scholastic and religious instruction. In general, no night work shall be imposed upon apprentices, nor shall they be required to perform any work in their trade on Sundays or holidays. By night work is meant work performed between the hours of 8 p. m. and 5 a. m.

12. Exceptions from the preceding restrictions may be permitted in the case of trades and industries which require night work, or which must be exercised on Sunday, but the council of state as well as the communal authorities and the supervisory commissions shall always have the right to require that these exceptions be specially authorized.

13. There shall be instituted by the council of state in the department of industry and agriculture a commission, in which must be represented as far as possible the various trade unions officially recognized, having as its duty the study of the improvements that can be introduced in the service for the protection and supervision of apprentices, and the means of continually increasing the value of apprenticeship and the technical training of workingmen. It shall also, upon the recommendation of the apprenticeship commissions and the trade unions, prepare the programme of apprenticeship examinations, as hereafter provided.

Examination of apprentices.—14. It shall be the joint duty of the department of industry and agriculture, the communal councils, and the apprenticeship commissions to organize examinations for the purpose of determining if the apprentices have acquired during their terms of apprenticeship the technical knowledge and professional aptitude necessary in order that they may exercise with intelligence and profit the trade they have chosen.

15. No person shall be permitted to take these examinations unless he is an apprentice in Neuchâtel or one of the other Swiss Cantons, is less than 25 years of age, and has prosecuted at least half of his apprenticeship with an employer resident in the Canton.

16. These examinations shall consist of inquiries concerning the theory of the technical elements which it is considered should be known by the apprentice, but chiefly of the execution of practical tasks, so that it may be possible to judge of his skill and knowledge in respect to the rules and practices of his trade.

17. Diplomas indicating the results of the examinations shall be given by the department of industry and agriculture to those apprentices who show a sufficient capacity for the practice of their profession.

18. There shall also be given to the apprentices whose examinations show the most favorable results prizes and recompenses consisting of deposits in the savings bank, books, or instruments or tools made use of in the trade which they intend to follow. Scholarships may also be accorded to those apprentices giving evidence of exceptional aptitude and desiring to further perfect themselves in the practice of their art or trade. The council of state shall fix the number and value of these scholarships, as well as the conditions under which they will be awarded.

19. Provision must be made each year for an appropriation of not less than 3,000 francs [\$579] to be distributed in prizes to apprentices receiving diplomas.

20. The objects made and presented at the examinations by the apprentices receiving diplomas must, in general, be publicly exhibited, with mention of the name of the apprentice making each, the results of the examination, and the name of the employer.

21. Candidates for apprenticeship diplomas must register themselves at least 3 months before the termination of their apprenticeship either with the commission having charge of the supervision of apprentices in their districts or in their trades, or with the communal council.

22. The apprentice who fails upon an examination shall not again present himself for examination until at least 3 months have elapsed.

23. The examination of candidates for apprenticeship diplomas shall be by a jury of 3 members, of whom at least 2, one an employer and the other an employee, must belong to the trade followed by the apprentices. If the conditions of the examinations require it, this jury may be composed of 5 members, of whom at least 4, 2 employers and 2 employees, must belong to the trade. These juries are appointed by the apprenticeship commissions where there are such bodies, otherwise by the communal council.

24. All the provisions of this law apply equally to female apprentices.

Penalties.—25. Whoever is guilty of breaking article 8 of this law shall be punished by a fine of from 10 to 50 francs [\$1.93 to \$9.65]. Whoever breaks articles 9, 10, or 11 shall be punished by a fine of from 50 to 100 francs [\$9.65 to \$19.30].

26. The present law shall enter into force after having been approved by the referendum.

VAUD.—Following is the law concerning apprentices passed by the Canton of Vaud, November 21, 1896 :

General regulations.—1. The present law relates to apprenticeship in industry, in the handicraft trades, and in commercial establishments.

Its provisions constitute public law, and can not be changed by private agreements.

2. In cases of doubt as to whether a person is subject to this law, the apprenticeship commissioner shall decide, from whose action an appeal may be taken to the department of commerce and agriculture.

3. All documents in reference to apprenticeship shall be free from stamp duties. Certificates, proofs, and forms shall be gratuitously provided. The forms may be procured from the communal chancellor and the clerk of the industrial courts.

4. It is unlawful to hinder an apprentice from fulfilling his duties or to induce him to leave his apprenticeship. Whoever, contrary to law, breaks an apprenticeship contract is liable for damages.

5. Whoever has been deprived of his civil rights by a judicial order may not have apprentices during the period of his punishment.

Apprenticeship contracts.—6. The conditions of each apprenticeship must be incorporated at its commencement in a written contract, for which the official form must be used.

7. Three copies of the contract must be made, one of which must be given to the clerk of the industrial court or the communal clerk, who shall transmit it to the apprenticeship commission, and the other two shall remain in the hands of the master and the apprentice or his legal representative.

8. The parents who apprentice their child become parties to the apprenticeship contract in respect to seeing that the apprentice fulfills his legal and contractual obligations.

Duties of the master.—9. It is the duty of the master to instruct the apprentice in a methodical and thorough way in the occupation or specialty to which the contract relates. He may on his own responsibility intrust this duty to a foreman or other competent workman. He is further obligated to see that the apprentice pursues his technical instruction, and to allow him the necessary time during working hours for this duty. He is prohibited from employing the apprentice in household or other work that does not relate to the trade he is learning.

10. The master must care for the apprentice, and may use paternal discipline if the apprentice is not under the direct supervision of his parents or legal representative. He must keep him at work and look after his development. He must inform his parents or legal representative if he is guilty of any serious misdeeds or shows evil tendencies. He must in like manner give notice if the apprentice becomes ill, or absents himself, or if any other event occurs that makes the intervention of the parents desirable.

11. The master is bound to treat his apprentice well, to give him no bad advice, nor set him any bad example, and to see that he receives no bad treatment on the part of the workmen or others belonging to his family.

12. The master must care for the health and strength of the apprentice and see that he is protected from overexertion or dangers which are not peculiar to the trade. He must make him mindful of the dangers of the trade, and show him how they can be avoided. He must insure him against industrial accidents, and bear half the cost entailed by such insurance. Exceptions, however, may be made through order in the case of industries presenting no dangers, in which case the employer still remains liable.

13. The hours of labor of the apprentice, including the time necessary for religious, ordinary, and technical instruction, must not exceed 10 per day. As an exception the period may be extended to 11 hours upon the condition that the weekly period does not exceed 60 hours. An unbroken rest of at least 1½ hours must be allowed at noon. The apprentice must not work at night nor on Sundays. Work between the hours of 8 p. m. and 5 a. m. is considered as night work.

14. When the exceptional conditions of a business are such as to make it seem desirable, the administrative council may grant exemptions from the provisions of article 13. Where the conditions are such as to require it, the apprenticeship commission or its delegate may grant permission for a lengthening of the labor period, provided that the periods of rest are lengthened in a corresponding manner. This permission must be in writing, and must not be for more than a month nor be renewed more than 3 times in a year.

15. If the apprentice lives with his master, the latter must supply him with a clean living room, healthy food, and, in cases of temporary sickness, medical attendance, and, when no other agreement has been made, provide for such washing, lighting, and heating as may be necessary.

16. On the conclusion of the apprenticeship term the master must provide the apprentice with a certificate signed by himself, which shall contain only information concerning the trade of the apprentice and the length of his apprenticeship. If this certificate is not given by the master the apprenticeship commission may, at the request of the apprentice, provide one. The master is prohibited from dismissing the apprentice before the end of his term, except upon justifiable grounds.

Duties of apprentices.—17. The apprentice owes obedience and respect to his master. He must work with diligence and conscientiousness under his supervision and advice.

18. He must attend the trade instruction which is given in his locality or near by, so far as it relates to his trade. The apprenticeship commission shall decide concerning the extent of this obligation.

19. He is prohibited from revealing the trade secrets of his master, or from informing strangers concerning his knowledge or business.

20. He is also prohibited from absenting himself without permission except upon sufficient excuse.

21. He is likewise prohibited from quitting his apprenticeship before the end of the term except upon justifiable grounds.

Supervision of apprenticeship.—22. Apprenticeship matters shall be watched over by apprenticeship commissions created by the industrial courts. In those districts which have no industrial courts the apprenticeship commissions shall be created by the administrative authorities (*Regierung*). The apprenticeship commissions are under the supervision of the department of commerce and agriculture, which may delegate this duty partly or wholly to a special official.

23. The commissions or their delegates shall look after the exact observance of the law, the execution of the regulations, and the apprenticeship contracts. They must inform themselves as to whether the master instructs his apprentice in his trade or specialty in a complete and methodical manner. They must likewise see that the apprentice is not given work injurious to his health or beyond his strength. They may grant permission for the temporary extension of the work period (arts. 13 and 14). They must organize and oversee the apprenticeship examinations.

24. The commissions or their delegates must receive the complaints of the masters and apprentices or their legal representatives, and transmit them to the proper authorities. According to their judgment they must prepare regulations and make the rules necessary in relation to the matter of the breaking of apprenticeship contracts. They must inform the legal representatives of the apprentice whenever their intervention is necessary. They must furnish the apprenticeship certificate when the master fails to do so. They may, upon their own initiative or upon request, take an apprentice out of his apprenticeship if they are satisfied that the master does not possess the necessary technical knowledge, does not fulfill his duties toward the apprentice, or gives himself to drink, or upon other grounds.

25. A supervisory council in relation to apprenticeship shall be created in the department of commerce and agriculture, whose duty it shall be to study all means of improvement which the supervision of apprenticeship matters brings up, and the means by which the value of the apprenticeship system or the technical instruction of workingmen can be increased. It must organize and supervise the apprenticeship examinations in the Canton. For this purpose it must give the apprenticeship commissions the necessary instructions.

Apprenticeship examinations and conditions of apprenticeship.—26. Examinations shall be held under the supervision of the department of commerce and agriculture to determine if the apprentices have received or possess a satisfactory practical and theoretical knowledge. A special regulation shall determine the more exact conditions for the regulation of these examinations.

27. The department of commerce and agriculture shall give a diploma to each apprentice who, at the end of his apprenticeship, satisfactorily passes the examination. This diploma shall contain information concerning the result of the examination and the work and behavior of the apprentice during his term of apprenticeship. The results of the examination of the apprentices receiving diplomas shall be published, with their names and those of their masters.

28. Those apprentices who pass the examination with very good results may be given prizes, such as deposit books in savings banks, books, or instruments or tools which are necessary in their trade. Rewards may also be given to those who have instructed these apprentices.

29. Those apprentices who show special capacity in their examinations and desire to be still further instructed may be given stipends.

30. Upon the request or proposition of the communal council and the apprenticeship commission, the administration may make State contributions to (a) communes or associations that maintain courses for trade instruction; (b) industrial enterprises which take special care for the development of worthy apprentices; (c) those young persons who have the necessary capacity, but not the necessary means, to complete their apprenticeship term, with the assistance of their native communes, and according to a tariff drawn up by the administrative council.

31. The communes must defray half the cost entailed by the examination of apprentices and the supervision of apprenticeship.

Civil disputes.—32. Disputes concerning apprenticeship shall be decided by the industrial courts, and when there are no such bodies, by the apprenticeship commission, from whose decision an appeal lies

to the supervisory apprenticeship commission when the matter in dispute exceeds 500 francs [\$96.50]. The procedure is determined by the law of November 26, 1888, in relation to industrial courts, so far as its provisions apply in a direct or analogous manner.

Penalties.—33. Infractions of this law may be punished by the apprenticeship commission by fines not exceeding 200 francs [\$38.60]. When the fine exceeds 50 francs [\$9.65] an appeal may be made to the appellate court of the industrial court, and in the absence of such a court, to the supervisory apprenticeship commission.

The concluding sections of the act give certain provisions regarding the manner in which the law shall enter into force that are not of permanent interest, and therefore are not reproduced.

FACTORY LEGISLATION.

The history of factory legislation in Switzerland falls into two distinct periods, that prior and that subsequent to the enactment of a Federal factory act, in 1877. Before the adoption of the Federal constitution, in 1848, the power to enact laws in relation to labor was exclusively vested in the Cantons. A clause in this constitution permitted the enactment of a Federal law in respect to factory work, and in pursuance of it the law of 1877 above referred to was enacted. Before this law and the subsequent action of the Cantons are considered it is desirable to make a brief statement of the legislation of the period prior to the enactment of the law, in order that the changes introduced may be better appreciated.

The earliest laws for the protection of labor in Switzerland related exclusively to the domestic or household industries, and important examples of such regulations may be found, especially in Zurich and Basel, as far back as the end of the seventeenth century. The rise of the factory system in the nineteenth century was accompanied by most of the evils, such as long hours, employment of very young children, etc., that have characterized that system elsewhere. The only restraining laws at that time were those providing for obligatory school attendance. Particular Cantons, however, soon began the enactment of special laws for the restriction of the employment of children. Zurich enacted such a law November 7, 1815, and Thurgau on December 22 of the same year. These, however, were but isolated measures, and neither they nor other measures enacted by the Cantons prior to 1848 were of great efficiency.

In 1848 the Canton of Glarus passed a law which deserves special mention, as by it adult labor as well as that of children was for the first time subjected to regulation. The act was also in other respects an important law. The regulation concerning adult labor fixed the normal work day at 13 hours. In 1864 the maximum number of hours of labor per day that could be required of workingmen was reduced to 12, and in 1872 to 11. In the meantime other Cantons had followed

the lead of Glarus and had enacted laws, the purpose of most of which was the restriction of the employment of children. Such were the school law of December 20, 1850, and the factory law of August 20, 1873, of Schaffhausen; the law of August 18, 1853, concerning child labor, of Saint Gall; the ordinance of September 3, 1856, and the factory law of November 15, 1869, of Basel Town; the factory law of October 24, 1859, of Zurich; the factory law of May 16, 1862, of Aargau; the regulation concerning the manufacture of matches, of December 15, 1865, of Bern; the factory law of June 7, 1868, of Basel Land, and the ordinance of August 20, 1873, of Ticino.

It was inevitable that the result of this development of a system of labor regulations in the Cantons should lead to a demand for a general law. Those Cantons restricting the employment of children or adults claimed that they were placed at a disadvantage in respect to the Cantons without, or with less rigid, restrictions. The result of this agitation, and the labor movement, which at that time was of unusual strength, was the placing in the constitution of 1874 of article 34, which reads as follows:

The Confederation has the right to make uniform prescriptions concerning the labor of children in factories, concerning the duration of labor that may be required of adults, as well as concerning measures for the protection of workingmen against the exercise of unhealthy and dangerous industries.

There are two features of this article to which attention is particularly directed. In the first place, it will be seen that while this clause confers power upon the Federal Government to enact factory regulations of a certain character, it in no way restricts the right of the Cantons to enact laws of the same kind, provided that they are not in conflict with the Federal law. This freedom, as will be seen, has been taken advantage of by most of the important industrial Cantons, and laws have been enacted by them supplementing the Federal law or in regard to points not covered by it.

Secondly, it will be noted that the power of the Federal Government to regulate the employment of children, the hours of labor of adults, and the protection of employees is strictly limited to work in factories. All regulation of labor outside of factories thus belongs exclusively to the communes. (a)

FEDERAL LEGISLATION.

In pursuance of the power thus given to it the Federal Government immediately entered upon the elaboration of a general factory law, the enactment of which was secured March 23, 1877. It was submitted

^a This statement, of course, does not apply to labor in establishments or enterprises conducted by the Federal Government, such as post-offices, State monopolies, and railways, which by a referendum vote taken in 1898 will become Federal property.

to, and approved by, a referendum vote October 21 of the same year. This law is still in force. The only modifications that have been made in it are those contained in the law of June 25, 1881, concerning employers' liability, which repeals section 5 of the factory act relating to this subject, with the exception of the clause reproduced below. The scope of the factory act has also been extended by the law of April 26, 1887, amending the employers' liability act of 1881, to the extent that the obligation of taking precautions against accidents and reporting accidents is extended to a large number of establishments not comprehended under that act. The definition of "factory," as used in the act, has also been made more comprehensive by administrative orders.

Constituting, as it does, the fundamental factory law of the Confederation, it is thought best to give the full translation of the law of March 23, 1877, concerning labor in factories:

1. Every industrial establishment in which a greater or less number of workmen are employed simultaneously and regularly outside of their homes, and in an inclosed place, shall be considered as a factory and subject to the provisions of this law. When there is doubt as to whether an industrial establishment ought or ought not to be included in the category of factories the final decision shall rest with the Federal Council after it has taken the advice of the cantonal government.

2. In all establishments the workrooms, machines, and engines must be installed and maintained in such a way as to afford the greatest possible protection to the health and lives of the employees. Particular care must be taken that the workrooms are well lighted during working hours; that the atmosphere is as far as possible free from dust that may be engendered there, and that the air is renewed with a frequency proportionate to the number of employees, the means of illumination, and deleterious emanations that may be formed. Parts of machines and means of transmitting power that offer possible danger to the employees must be carefully fenced. In general, there must be taken, for the protection of the health of employees and the prevention of accidents, all measures which experience has shown to be desirable and which permit of the application of measures resulting from the progress of science as well as the maintenance of existing conditions.

3. Every person who wishes to establish or conduct a factory, or transform one already created, must give notice of his intention to the cantonal authorities and indicate the nature of the projected enterprise. He must also furnish the plan of construction and interior arrangement of his establishment in order that the authorities may satisfy themselves that the provisions of the present law are in all respects observed. No factory shall be opened or operated without the express authorization of the Government. If the nature of the industry is such as to offer exceptional dangers to the health or lives of the employees or of the neighboring population, the authorities may attach to its authorization such conditions as they deem desirable.

If during the operation of a factory it is seen that the health or lives of the employees or of the neighboring population are threatened, the authorities may order the abatement of the circumstances responsible for this condition of affairs and fix a time within which their order must

be executed. If the circumstances are such as to require it, the establishment may be closed. Differences that may arise between cantonal governments and proprietors of factories shall be settled by the Federal Council.

The Federal Council shall promulgate such general and special regulations as may be required for the application of the present article. Subject to the provisions of this law the laws of the Cantons regulating constructions remain in force.

4. It is the duty of the proprietor of every factory to immediately notify the competent local authority of all cases of accidents resulting in death or serious injury occurring in his establishment. The authorities must then proceed to hold an inquest to determine the causes and consequences of the accident and to give notice of it to the government of the Canton.

5. The Federal Council shall also designate those industries the exercise of which gives rise to serious maladies, in the case of which it may extend the responsibility of employers for accidents.

6. It is the duty of employers to keep a list of persons working in their establishments according to the form prepared by the Federal Council.

7. Employers must prepare regulations setting forth the organization of labor, the policing of the establishment, the conditions of entering and leaving the works, and the payment of wages. If the regulations provide for fines they must not exceed half a day's wages. Receipts from fines must be used for the benefit of the employees, and particularly for the support of the aid funds. Deductions from wages on account of imperfect work or the injury of raw materials are not considered as fines. Employers must also see that morality and good conduct is maintained in the shops where men and women are employed.

8. Factory regulations, or modifications of them, must be submitted to the cantonal governments for their approval, which may be refused if they contain provisions contrary to law. The workingmen must be allowed to express their opinions concerning provisions affecting them before the regulations are offered by the authorities.

The factory regulations once approved bind both the employer and his employees. Every infraction of them by the former comes under the provisions of article 19 of the present law.

If the application of the factory regulations gives rise to abuses, the cantonal government may order their revision. The factory regulations, indorsed by the approval of the cantonal government, must be printed in large type and posted in some place in the factory where they can be plainly seen. Each workingman must be furnished with a copy of them upon entering the establishment.

9. Unless there is a written contract to the contrary, the contract between an employer and workingman must not be terminated without at least 14 days' notice. Either party may take the initiative in terminating the contract on pay day or Saturday. Unless there are special difficulties in the way, an employee working by the piece must in all cases complete the work upon which he is engaged. The contract must not be terminated before the expiration of this time by the employer without the consent of the employee, except when the employee has shown that he is incapable of finishing the work commenced, or if he has been guilty of a grave violation of the factory

regulations. It must not be terminated by the employee except when the employer does not fulfill his obligations toward him, treats him in a manner contrary to law or the contract that binds him, or tolerates such action on the part of some other person.

Disputes that arise in the reciprocal termination or other points of the contract shall be decided by a competent judge.

10. Employers must pay their employees in the factory at least once every 15 days in cash, in legal tender. Special agreements between employers and employees and the factory regulations may provide for monthly payments.

The part of wages carried to the new account on pay day must not exceed the wages of the last week. In piecework the conditions of payment until the completion of the work may be fixed as the parties agree.

Deductions from wages for a special purpose must not be made except in accordance with a contract to that effect between the employer and the employee.

11. The normal duration of a day's labor must not exceed 11 hours, and on the day before Sunday and a holiday must not exceed 10 hours. This work period must fall between the hours of 5 a. m. and 8 p. m. during the months of June, July, and August, and between 6 a. m. and 8 p. m. during the remainder of the year.

The hours of labor must be regulated by a public clock, and notice must be given to the local authorities. In the case of an unhealthy industry, or where the conditions of operation or methods employed are of a nature to render a work period of 11 hours prejudicial to the health or lives of the employees, the normal duration of a day's labor may be reduced by the Federal Council, as may be necessary, until it is shown that the danger giving rise to the reduction no longer exists. Requests for permission to prolong this work period in an exceptional manner, or for a certain time, must be addressed to the authorities of the competent district, or, when there are none such, to the local authorities, in all cases where the prolongation of labor is for not more than 2 weeks. If the request is for a longer time it must be addressed to the cantonal government.

Workingmen must be given, during the middle of the work period, a rest of not less than one hour for their midday meal. Suitable places, heated in winter, and outside of the ordinary work rooms must be gratuitously furnished the employees who bring or have their meals brought to the establishment.

12. The provisions of article 11 do not apply to accessory work which precedes or follows the real work of manufacture, and which is executed by men or unmarried women over 18 years of age.

13. Night work may be permitted only in exceptional cases, and workingmen shall be so employed only when they freely consent to it. In all cases when it does not relate to an urgent repair necessitating exceptional night work during one night only, permission for night work must be obtained from the authorities. If the night work is for more than two weeks authorization must be obtained from the cantonal government.

Regular night work may be permitted in those branches of industry which need to be uninterruptedly prosecuted. Employers desiring to take advantage of this provision must show to the Federal Council that this industry requires that kind of work. At the same time they must

submit a regulation showing the division into work periods and the number of hours of labor required of each workingman; a number which must in no case exceed 11 in each 24 hours. The permission may be revoked at any time if circumstances change.

14. Sunday work is prohibited, except in cases of absolute necessity, in all factories except those which by their nature require to be continuously operated, and to which the necessary authorization, as provided for by article 13, has been accorded by the Federal Council. Even in establishments in this category each employee must be free from work every other Sunday.

The Cantons may, by legislation, fix other holidays, not exceeding 8 during the year, during which factory work shall be prohibited as on Sundays. Such days, however, shall only be declared obligatory for members of those religious bodies that observe these holidays. The employee who refuses to work on a religious holiday, not included in the 8 days above mentioned, shall not be fined for so doing.

15. Women must not be employed on Sundays or at night.

When they have a household to look after, they must be permitted to leave their work half an hour before the midday rest, if that period does not equal at least one and a half hours.

Women must not be permitted to work in factories during a total period of 8 weeks before and after their confinement. After confinement, they must not be again received in factories until they have furnished proof that 6 weeks have elapsed since that occurrence.

The Federal Council shall designate those industries in which women who are pregnant shall not be permitted to work.

Women must not be employed in cleaning engines in motion, means of transmitting power, or dangerous machinery.

16. Children under 14 years of age must not be employed in factories.

For children from 14 to 16 years of age, the time reserved for their scholastic and religious instructions, and that of their work in factories together, must not exceed 11 hours per day; and their scholastic and religious education must not be sacrificed by their employment in factories.

Young persons under 18 years of age must not be employed on Sundays or at night. In those industries, however, in which the Federal Council has, in virtue of article 13, recognized the necessity for uninterrupted work, the authorities may authorize the employment of boys from 14 to 18 years of age, if it is shown that it is indispensable to employ young persons, and especially if such employment appears to be in the interest of a good apprenticeship. In such cases the Federal Council shall fix for the young persons the duration of night work, which must be below the normal work period of 11 hours. It shall also order that they be employed alternately and successively, and, after having carefully examined the condition of affairs, it shall make its authorization subject to such guaranties and conditions as it deems necessary in the interest of the health of the young persons.

The Federal Council is authorized to designate those branches of industry in which the employment of children is absolutely prohibited.

The employer shall not allege as an excuse his ignorance of the age of his employees or the instruction that they ought to receive.

17. The execution of the present law, which applies equally to existing factories and those that may be erected in the future, as well as the application of measures and orders emanating from the Federal Council

cil in conformity with the present law, belongs to the cantonal authority, which for this purpose may take such action as it judges proper.

The cantonal governments must furnish the Federal Council with statements of the factories existing in their districts, as well as those that may be established in the future. They must also furnish, according to the regulations to be made by the Federal Council, statistical material concerning the different points covered by the law. At the end of each year the governments must make detailed reports concerning their action from the point of view of the execution of the present law their experience in this respect, the effect of the law, etc.

The Federal Council shall make further orders concerning the mode of procedure in this matter.

The cantonal governments must, at the same time, furnish the Federal Council, the department designated by it, or competent officials all information that may be demanded of them.

18. The Federal Council shall exercise a control over the execution of the present law. It shall designate for this purpose permanent inspectors, and determine their duties and attributes. It may, in addition, if it thinks it necessary, order the special inspection of particular industries or factories. It shall ask of the Federal Assembly the grant of funds necessary for this purpose.

19. Without affecting the matter of civil responsibility, every infraction of the provisions of this law or written orders of the competent authorities will be punished by the courts by a fine of from 5 to 500 francs [\$0.97 to \$96.50]. In case of a second offense, the court may, in addition to the fine, impose a penalty of imprisonment for not more than 3 months.

20. Provisions of cantonal laws and ordinances in contravention of the present law are abrogated.

The foregoing law, it will be observed, covers in an exceptionally complete way the points usually embraced in factory codes. The indefiniteness with which the term factory was defined by the law has permitted the administration to give to it a very comprehensive significance. The scope of the term as originally fixed by the Federal Council in 1878 was very materially enlarged by a decree issued June 3, 1891. According to this decree, which is still in force, the factory law is made to apply to the following classes of establishments: (1) All industrial establishments where more than 5 persons are employed and use is made of mechanical motors, or where persons under 18 years of age are employed, or which present unusual danger to the health or lives of the employees; (2) all industrial establishments employing 10 persons, whether they present any of the foregoing conditions or not; (3) all industrial establishments employing less than 6 persons, and presenting unusual danger to the health or lives of the employees, or those employing less than 11 employees and presenting plainly the type of factories.

In regard to the scheme of regulation provided, the law provides for the prevention of accidents, the protection of the health of employees, the keeping of registers, the preparation and posting of shop regula-

tions, the imposition of fines, the notice required in terminating the labor contract, the payment of wages, the hours of labor of adult males as well as women and children, and the conditions under which overtime, night, or Sunday work may be permitted. The law regarding all these points is stated with exceptional clearness, and nothing would be gained by attempting their restatement. Interesting features in the law to which attention might be specially directed are that the policy of regulating the labor of adult males is here provided for, not in exceptional cases merely, but generally, and that employers must not put in force their factory regulations until the employees to be affected by them have been given an opportunity to be heard.

The Federal law, in addition to its positive provisions, empowers the Federal Council to issue general instructions and special regulations regarding the measures to be taken for the protection of the health and lives of employees in factories wherever such action is deemed necessary. In pursuance of this authority the Federal Council has issued various decrees regarding conditions that must be observed in particular industries. On December 13, 1897, it promulgated a decree which is of especial importance, as it specifies in detail the conditions that must be observed in the erection or reconstruction of a factory and the measures that must be taken for the protection of the health and lives of the employees. The decree is as follows:

Whoever proposes to construct a factory in the meaning of article 1 of the Federal law concerning labor in factories, to reconstruct or enlarge existing industrial structures, or establish places to be rented as factories, must before beginning work submit the plans proposed to the cantonal government for its examination and approval.

Before its approval is given the cantonal government must send the plans and documents to the Federal inspector of the arrondissement for his opinion. The inspector must be informed of the decision of the cantonal government.

The cantonal government has the authority to grant certain exceptions to the provisions of article 6 when it believes the circumstances are such as to justify such action. When this is done the Federal inspector of factories must be informed, and he must immediately notify the cantonal government of any objections that he may desire to interpose. In case of a disagreement the Federal department of industry or the Federal Council shall decide.

Two copies of the following plans must accompany the application for a permit: (1) A plan showing the location of the projected building and its surroundings for a distance of 50 meters [164 feet] on a scale of $\frac{1}{800}$ to 1,000; (2) plans and designation of use of all work places (*locaux*); (3) plan of exterior; (4) plans showing the longitudinal and transverse sections, one of which at least must be by the stairways. The scale for the last three must be $\frac{1}{100}$.

The plans must be accompanied by documents showing: (1) The nature of the industry proposed; (2) where steam power is used, the installation of the boilers, the kind of system used, the heating surface, the capacity in cubic meters, the normal pressure in atmospheres,

and the position, height, and construction of the chimneys; (3) for motors of any kind, their method of construction and installation, notably the manner in which vapors and gases are given forth; (4) the elevators, the principal means of transmitting power, the location of machines, the passages between and beside these machines, the location of apparatus for heating and their connections, and the manner of lighting; (5) the dimensions of the windows and their distance from the ceiling, movable windows, and the possibility of a partial opening of interior and exterior windows; (6) the means of ventilation, and the maximum number of workmen that will be employed in each place; (7) the water-closets or privies and the means of removing the deposits; (8) where necessary, the places provided as eating rooms, toilet rooms, for changing clothes, etc.

Where all this information can not be furnished with sufficient definiteness when the plans are filed it may be subsequently provided prior to the actual work of installation.

Cellars must not be made use of as places of work, except in exceptional cases, and upon the condition that they are sufficiently lighted and protected against dampness and flooding.

All workrooms must be at least 3 meters high [9.84 feet], and provide a free space of at least 10 cubic meters [353.14 cubic feet] per person employed. Rooms having a floor space of from 100 to 200 square meters [1,076.4 to 2,152.8 square feet] must be at least 3.5 meters [11.5 feet] high, and those of over 200 square meters [2,152.8 square feet] floor space at least 4 meters [13.12 feet] high.

Windows must be at least 1.8 meters [5.9 feet] high, and not more than 30 centimeters [11.8 inches] from the ceiling. They must be so arranged that in case of necessity the persons can escape by them. These provisions do not apply to sheds or unusual constructions.

Shops, stairways, corridors, privies, etc., must be provided with sufficient natural or artificial light. If gas or electricity is employed for this purpose, a sufficient number of safety lamps must be provided (*lampes de sûreté*).

Ventilation must be facilitated by appliances (*attiques*) that can be easily regulated, placed at all the windows unless other satisfactory appliances are provided. These *attiques* must have sides of sheet iron unless there is some special reason preventing it.

The pipes for heating must be placed as low as possible, and in such a manner that the employees do not suffer from the heat. They must be protected, as far as possible, from dust and be so that they can be easily cleaned.

Stairways which are not inclosed by solid walls must be provided with good handrails. In places where there is any danger of fire, and where inflammable material is manipulated by light, the stairways must be of stone or iron and inclosed by fireproof walls.

Every building that is 30 meters [98.4 feet] long must have at least two distinct stairways each with a special exit, and each building 3 or more stories high must have two stairways or a principal stairway and another means of escape. The principal stairway must be at least 1.2 meters [3.94 feet] broad.

Doors must be at least 1 square meter [10.76 square feet] in size and open outwardly. In places where inflammable or explosive materials are manipulated, both sides of the doors must be covered

with metal. Large sheds must be provided with exits proportionate in number to their size.

Elevator cages and other means of communication between stories must be so arranged that they can not facilitate the spread of flames or smoke. The large cages must be constructed of incombustible material and as far as possible inclosed on all sides. Elevators which are used for transporting persons must be furnished with appliances to prevent their falling, and their exits must be plainly indicated and provided with safety catches.

Galleries, passageways, platforms, etc., must be provided with protective railings and fencing to prevent the falling of objects.

Separate privies must be provided for the male and female employees in the proportion of at least one for each 25 persons. Those for male employees must be provided with urinals. They must be separated from the workroom by a space easily aired, and their doors must close automatically. The discharge pipes must never be of wood, and ventilation pipes opening above the roof must always be installed. Those which are connected with a general sewer system must be provided with a water flow. The deposit ditches must be water-tight and separate from all the walls of the building, and their openings by which the material is removed must be provided with means by which they can be hermetically closed. The ventilation pipes must be at least 20 centimeters [7.87 inches] in diameter and rise above the roof and highest skylight.

In places where fine or injurious powders or deleterious or obnoxious gases are generated precautions must be taken for their removal. Places must also be provided where employees can change their clothes and wash themselves, and when necessary special toilet and bathrooms must be furnished.

All gas, benzine, petroleum, and similar motors must be installed in rooms separated from the workroom by partitions which are as far as possible impermeable. Gasometers, gas purifiers, etc., must not be placed where there is any light or other burning substance.

Dryers heated directly by stoves must be installed in special buildings or separated from the principal building by a fireproof wall.

Warerooms for storing large quantities of easily inflammable materials must not be provided under the rooms unless they are surrounded with fireproof walls and ceilings.

The installation of steam boilers and nongenerative steam apparatus is regulated by the ordinance of October 16, 1897, concerning the establishment and operation of such apparatus.

All movable parts of machines must be inclosed and isolated in such a way as to prevent any dangerous contact with them. Similar precautions must be taken in the case of electric motors and conductors.

The means of transmitting power that can be reached by workmen and which are not completely isolated must be placed at least 2 meters [6.56 feet] above the floor. The cables or gearing which traverse the roads, passages, courts, etc., must be properly guarded. They must not present any prominent collar (*clavette*) or screw head (*tête de vis*). Subterranean means of transmitting power must be so arranged that they can be easily inspected from overhead or by a canal or passage offering no difficulties or dangers.

In all workrooms means must be provided whereby machines can be rapidly thrown out of gear. When, by way of exception, these are

lacking, means of signaling to the motor-machine room must be provided. Separate means of throwing each machine out of gear must be provided.

Machines must be so installed that workmen are not inconvenienced by them or exposed to danger. In any case the passages between machines must be at least 80 centimeters [2.62 feet] and the principal passages 1 meter [3.28 feet] broad.

Eating rooms must always be provided when it is not shown that they can be properly dispensed with.

Good drinking water must be furnished for the use of the employees.

Hydrants, or at least reservoirs that can be used in case of fires, must be installed wherever possible.

All regulations of the Cantons in contravention to the present regulations are rendered void. Those extending its scope, however, are maintained in force.

The law also provided that the Federal Council could designate those branches of industry in which the employment of women who were pregnant and those in which the employment of children should be absolutely prohibited. In pursuance of this power the Federal Council issued a decree December 31, 1897, the essential provisions of which are summarized below.

The employment of women who are pregnant is prohibited in the following kinds of work: (1) Work in which there is an escape of phosphorus vapors, and the operations of mixing, dipping, removing from frames, and boxing in match factories; (2) the manipulation and mixing of lead, the manufacture of colors having a lead base, work of composition, varnishing, and glazing in foundries or workshops with materials having a lead base, and lead enamel work; (3) work done near pneumatic mercury pumps in the manufacture of incandescent lamps; (4) work done in rooms where there are fumes of sulphuric acid; bleaching of cotton and straw; (5) cleaning with benzine; (6) manufacture of caoutchouc articles; work in which there is an evaporation of sulphuret of carbon and sulpho-chloride; (7) work requiring the carrying of heavy burdens or exposure to violent shocks.

The employment of children from 14 to 16 years of age is prohibited in the following kinds of work: (1) Attending to boilers used for boiling under pressure; for work in connection with steam boilers the provisions of article 21 of the ordinance of October 16, 1897, regarding the establishment and operation of steam boilers and nongenerating steam apparatus must be complied with; (2) attending to motors of all kinds (water wheels, turbines, steam engines, and gas, petroleum, and benzine motors); (3) attending to dynamos and other electrical work in which high-tension currents are used; (4) attending cranes and drawbridges; (5) overseeing the transmission of power, putting belts in place on wheels or pulleys; (6) attending circular or band saws, planing, straightening, and mortising machines; (7) attending batting machines, calenders, shearing machines, as far as they are not

perfectly guarded, crushing machines, machines for cutting paper, bark, etc.; (8) work in connection with explosives; (9) the heating of easily inflammable materials (asphalt, tar, rosin, varnish, wax, etc.); (10) work in cement and gypsum factories where much dust is produced; work on emery wheels, trimming and cleaning castings; work near grinding machines in paper, glass, and emery factories; dry grinding of glass, stone, bone, or wood; hat polishing, rag sorting, hemp and flax combing and carding; silk waste cleaning; glazing and singeing, and all kinds of batting machines where, in the work enumerated, the dust is not sufficiently exhausted; (11) mordanting and shaping in hat factories; (12) all classes of work in the chemical industry where poisonous or noxious gases are generated; (13) tinning and galvanizing; (14) the manufacture of paints containing lead; glazing with coatings containing lead and lead enamel work.

These provisions do not apply to persons serving an apprenticeship of several years, regulated by contract, in occupations where such apprenticeships are customary.

In order to render more effective the provisions of the law regarding the prevention of accidents and the protection of the health of employees in establishments which are particularly unhealthy or dangerous, the Federal department of factory inspection has elaborated special instructions regarding such places, which are sent to the employers and employees and posted in the establishments. Instructions of this kind have been prepared for the industries of cigars and tobacco, August 10, 1896; lead and its compounds, August 13, 1897, and woodwork, October 21, 1897. Especial efforts have been made to subject the manufacture of phosphorus matches to special regulation for the purpose of lessening the danger to health resulting from the use of white phosphorus in that industry. The proposition to make the manufacture of matches a State monopoly was rejected by a referendum vote September 29, 1895. Immediately afterwards the inspectors of factories were directed to report upon the measures that should be taken to protect the health of employees in that industry. Following their report a proposition was framed and introduced in the Parliament, which ultimately became the law of November 2, 1898.

This law provides that all match factories, regardless of the number of employees or the importance of the establishment, are subject to the provisions of the Federal factory law; that the manufacture can only be carried on in buildings devoted exclusively to this industry; that the manufacture of matches can not be undertaken without the authorization of the cantonal government, given with the consent of the Federal Council, the latter prescribing the regulations for guarding the health and safety of the employees and of the public, and that in case of the refusal by the cantonal government of such authorization, recourse may be had to the Federal Council; that before an authoriza-

tion can be granted the detailed plans of the establishment and a statement of the proposed method of manufacture, packing, transportation, etc., must be submitted to the cantonal government and in turn transmitted by the latter to the Federal Council; that the manufacture, importation, exportation, and sale of white-phosphorus matches is prohibited; that the importation and use of white phosphorus is only permitted by special authorization of the Federal Council for scientific, pharmaceutic, or other purposes not dangerous to health; that the sale, importation, and exportation of matches is prohibited unless they are packed in boxes bearing the name or registered trade-mark of the factory, and that factory inspectors may at any time enter any places where they have reason to suspect that the manufacture of matches is being carried on. The law authorizes the Federal Council to acquire and communicate to manufacturers any new processes which commend themselves to their attention as regards the health and safety of employees and of the public.

Fines of from 50 to 1,000 francs (\$9.65 to \$193) are provided for the punishment of infractions of this law. In the case of the unauthorized manufacture of matches, besides the imposing of a fine, the entire property, stock, etc., may be confiscated, and in case of a second offense the guilty party may, in addition, be sentenced to not more than 3 months' imprisonment.

CANTONAL LEGISLATION.

The enactment of a Federal law concerning factories, as has been said, in no way limited the power of the Cantons to enact similar laws, provided their provisions were not in conflict with those of the Federal law. Advantage of this power has been taken by at least 7 of the more important industrial Cantons.

In considering this action on the part of the Cantons it is important to notice that its character has been largely molded by the fact that in Switzerland, as in almost no other country, the system of household industry and small shops has been able to maintain its position in spite of the development of the factory system. Notwithstanding the extension given to the factory law in 1891 to establishments employing 6 or more persons, and in some cases less than that number, a considerable number of working people were still outside of the scope of that law. It was chiefly to regulate the conditions of labor of this class that the Cantons have enacted their special labor laws.

The first Canton to take action in this direction was that of Basel Town, which enacted a law February 11, 1884, afterwards replaced by a law passed April 23, 1888, in relation to the employment of females in small shops, such as those for dressmaking and millinery work, which were not under the Federal law. This Canton also passed

a special law for the protection of females in restaurants and hotels December 19, 1887. The example of Basel was followed by the Canton of Glarus, which enacted a still more comprehensive law May 8, 1892. This law relates to all persons not included under the provisions of the Federal law who are employed for wages in industrial establishments, or are engaged as apprentices. On May 18, 1893, Saint Gall passed a law for the protection of females employed as saleswomen or waitresses in stores and restaurants. Zurich enacted a law June 18, 1894, in regard to the employment of females in small shops; Lucerne and Soleure laws November 9, 1895, and Neuchâtel a law May 19, 1896.

To a certain extent the provisions of these laws are similar. Their main purpose is in almost all cases to extend the provisions of the Federal factory law to classes of workers not comprehended under that law.

An excellent comparative statement of the scope and provisions of these laws was given by Mr. H. Wegmann, an official of the Federal factory-inspection service of Switzerland, in his report to the international congress in relation to labor legislation at Brussels in 1897. (*a*) It would be difficult to give a better summary of these laws than is there presented, and that portion of his report will therefore be reproduced in a somewhat condensed form. Following it will be given a translation of four of the more important laws—those of Basel Town, Glarus, Zurich, and Neuchâtel.

Of the 7 cantonal laws, that of Glarus alone relates to adult males; all the others concern working women only. The laws of Zurich, Soleure, and Neuchâtel formally protect females working alone if they work for wages or are occupied in a trade. The laws of Saint Gall and Basel do not go so far except in reference to working women under 18 years of age, the law only applying to women over that age in places where 2 (in the case of Saint Gall) and 3 (in the case of Basel) are employed. Examining these provisions carefully, it will be seen that they are more comprehensive than would at first appear. Thus, any person working at home with his own tools is regarded as an employee if he works directly or indirectly for a manufacturer. The law of Neuchâtel also says clearly that a person must work outside of his own home in order to profit by the law.

It is unnecessary to say that the Cantons have incorporated in their laws many of the provisions of the Federal law, but these have not always been servilely copied. On the contrary, in some cases the restrictions are made less severe and in others gaps in the Federal law have been filled. The law of Basel has the most points in common with the Federal law. The more recent laws show greater differences. Thus,

a See note *a*, page 136.

that of Neuchâtel permits the employment of children 13 years of age in certain cases. Six Cantons (Neuchâtel by a special law) require the making of a formal contract where apprentices are taken. Zurich and Soleure make the first 2 weeks of such a service a period of probation during which either of the parties can break the contract upon giving 3 days' notice.

In general there are always provisions requiring workrooms to be spacious, dry, well lighted and heated, though the requirement that machines should be properly guarded does not always appear.

The provisions regarding hours of labor are naturally the most important of the laws. Five Cantons accept the normal workday of 11 hours, fixed by the Federal law. Zurich, however, has made 10 hours the maximum work period per day for females, and on the day preceding Sundays and holidays 9 hours, with a rest at noon of $1\frac{1}{2}$ hours in all cases. Neuchâtel has made the work period of girls under 15 years of age 10 hours per day, and of girls over that age 11 hours, with the exception of Saturday, which is limited to 10 hours.

Sunday labor is prohibited without exception.

Night work, that is, after 8 p. m., is also in general prohibited. This is the hour at which night work begins according to the Federal law, which is in no case permitted to female employees. As regards this point all of the cantonal laws differ from the Federal law, as they permit work by women until 9, 10, and 11 p. m. when the permission of the authorities has been obtained. Most of the cantonal laws fix the maximum amount of such overtime work that can be permitted at 3 hours per day and a certain maximum per year, 75 hours in the case of Zurich, 2 months for Glarus, and 3 months for Saint Gall and Lucerne. In Zurich and Lucerne permission is only granted for certain specific reasons as mentioned in the law, and in Soleure and Neuchâtel for "serious" reasons. In general the authorization must be in writing and posted in the shop or place of work, and no person can be required against his will to work overtime. With the exception of Glarus, overtime work must be paid for at a higher rate; in Zurich, Lucerne, and Soleure one-fourth more. These 3 Cantons also prohibit the giving of work to working women to be done at home after they have worked the normal workday.

The Cantons of Basel and Glarus have adopted the Federal regulation that women must not be allowed to work during the period of 8 weeks preceding and following childbirth. Saint Gall and Lucerne extend this prohibition to 6 weeks, Zurich and Soleure to 4 weeks following childbirth, and Neuchâtel makes no mention of the subject in its law. In a number of Cantons overtime work by females who are pregnant is prohibited.

Shop regulations are in general required only when the authorities deem the importance of the nature of the industry such as to justify

it. In Zurich and Lucerne copies of the laws must be posted in the places of work.

Most of the laws contain provisions regarding the payment of wages. Zurich and Lucerne stipulate that a reduction in wages must be announced 15 days in advance. Deductions from wages of any kind are prohibited by the law of Neuchâtel. Three Cantons make no mention of such retention of wages, while 3 provide that not more than one-half a week's wages can be retained if a previous arrangement to that effect has been made. Fines for the purpose of maintaining discipline, not in excess of from one-fourth to one-half a day's wages, are permitted, provided they are mentioned in the regulations agreed to by the employees.

A peculiarity that should be noted is that the laws of Zurich and Saint Gall intrust the control of food and lodging supplied to working women to the Government authorities.

The laws of Glarus, Saint Gall, Lucerne, Soleure, and Neuchâtel contain special paragraphs for the protection of females employed in places where liquor is sold. Zurich, February 3, 1896, promulgated a special law for this purpose. All of these laws, with the exception of that of Glarus, prohibit the regular employment as waitresses of girls under 18 years of age who are not members of the proprietor's family. In the case of Zurich this prohibition extends to girls who have not completed their twentieth year and boys under 16 years of age. Persons below these ages can be employed in other work during 8 hours per day, provided such employment does not extend after 9 p. m.

Glarus and Neuchâtel require 9 hours and the other Cantons 8 hours uninterrupted rest for employees. Lucerne prescribes at least 2 hours absolute rest on Sunday mornings. The provisions of the different laws concerning the substitution of some other day for Sunday as a day of rest are very dissimilar. Saint Gall, Lucerne, and Soleure require one-half day of freedom for employees each week; Neuchâtel prescribes 2 forenoons and 2 afternoons of freedom per month, and Zurich requires that 6 hours' continuous freedom between the hours of 8 a. m. and 8 p. m. be granted every week. These, however, may be replaced by 2 annual leaves of not less than 4 days each.

Other provisions regarding females employed in hotels and restaurants relate to the lodging and food that must be furnished them, the provision of separate beds for the employees, etc.

Provisions for the protection of females employed in stores are found in the laws of Glarus, Saint Gall, Lucerne, Soleure, and Neuchâtel. Their principal purpose is to insure that the women are allowed sufficient time, 8 or 10 hours, at night for rest and sleep. When Sunday work is permitted the Cantons of Lucerne and Soleure require a half day's freedom on that day, and that of Saint Gall a similar cessation from work during the week.

The law of Neuchâtel is the only one which contains provisions regarding the employment of females in office. For them it prescribes at least 9 hours cessation of work at night.

BASEL TOWN.—Following is the law concerning the employment of women, passed by the Canton of Basel Town April 23, 1888:

1. All industrial establishments in which 3 or more women or girls under 18 years of age are employed or serve as apprentices are subject to the provisions of the present act. Hotels (*Wirthschaften*) and stores are exempted so far as their female employees serve only as saleswomen and are not employed in industrial work.

2. The hours of labor of women employed in establishments coming under this act must not exceed 11 per day, and on the days before Sundays and holidays 10 hours per day. This labor period must fall between 6 a. m. and 8 p. m., and must be divided by a rest of at least 1 hour. Labor on Sundays is prohibited.

In exceptional cases the department of the interior may permit an extension of the work period to 11 p. m. If the overtime work is for more than 2 weeks the permission of the administrative council (*Regierungsrat*) must be obtained, and also if the permissions given during a period of 2 months amount to more than 3 weeks. In no case does the authorization of overtime work apply to girls under 18 years of age. These must never be employed in any kind of work after 8 p. m.

Women must not be employed during a total period of 8 weeks before and after giving birth to a child, and they must not be permitted to return to work until they have furnished proof that 6 weeks have elapsed since that event.

Women must only be employed in the evenings aftertime when they freely consent to work overtime and receive extra pay for such work.

3. Where it is not otherwise agreed in writing the agreement between employers and working women must not be changed by either party without giving at least 14 days' notice, starting from a pay day or Saturday. Within this period the relations between them may only be changed upon very important grounds, concerning which the judge will decide.

4. Fines shall only be imposed as provided for in the shop regulations, and they must not exceed one-half the day's wages of the person fined, and must be employed for the benefit of the working women. Reductions from wages on account of imperfect work are permitted if the injury is intentional or the result of gross carelessness.

5. The places in which women work are under the supervision of the sanitary authorities as regards their hygienic conditions.

6. When the scope or nature of a business is such as to justify such action, the factory commission may require an employer of an establishment comprehended under the act to prepare, and post in a conspicuous place, shop regulations setting forth the working periods, the conditions of entering and leaving, and the payment of wages. These regulations must be submitted to the department of the interior for approval. In case of dispute the administrative council shall decide.

7. Infractions of the provisions of this law shall be punished according to section 37 of the police law.

8. The administrative council is authorized to make such regulations as may be necessary for carrying out this law.

9. The enforcement of the law and the drawing up of the necessary regulations belong to the department of the interior and the factory commission.

10. The law of February 11, 1884, in relation to the hours of labor of working women is repealed.

ZURICH.—Following are the provisions of the law concerning working women, passed by the Canton of Zurich June 18, 1894:

General provisions.—1. The present law relates to all establishments not comprehended under the Federal factory law, in which women are employed for wages or for the purpose of learning the trade. There are excepted, however, agricultural undertakings, offices, hotel-keeping business (*Wirthschaftsgewerbe*), and commercial establishments as far as concerns those young persons who are exclusively engaged as saleswomen. In case of doubt as to whether an establishment is included under the law, the department of the interior shall decide.

2. Proprietors must inform the department of the interior of the existence of their establishments. Everyone has the right to propose to the department of the interior or the communal council the inclusion of a business under the law.

3. The department of the interior and the communal council shall prepare lists of establishments coming under this law. These authorities must inform each other of any changes. The communal council must inform the local health authorities of every place registered.

4. Girls under 14 years of age must not be employed as workers or apprentices.

5. Women must not be employed within 4 weeks after their confinement, and they have the right to remain away for 6 weeks.

6. Work on Sundays and holidays is prohibited.

Hours of labor.—7. The hours of labor must not exceed 10 per day, and on the days before Sundays and holidays not more than 9 hours, and must fall within the hours from 6 a. m. to 8 p. m. At least 1½ hours must be allowed in the middle of the day as a rest period. It is prohibited to give to women work to be performed at home that will make their hours of labor exceed the legal limit. Hours of labor must be regulated by a public clock.

8. Only that time shall be reckoned as periods of rest during which the women may leave the workrooms. The time required for girls under 18 years of age to perform their obligatory educational duties is included in their work period.

9. The work period may be extended in an exceptional and temporary manner upon the following grounds: Labor loss on account of the disturbance of the industry; accumulation of work in the season; orders resulting from events that could not be foreseen; the avoidance of great damages; threatened loss of materials; the prevention of nonemployment elsewhere.

10. The work period must not be lengthened more than 2 hours per day nor on more than 75 days in a year. Overtime work must as far as possible be before 8 p. m. and never after 9 p. m.

11. The rate of pay for overtime work must be at least one-fourth higher than the ordinary rate.

12. Overtime work is only permitted in the case of women over 18 years of age and then only when they freely consent.

13. The proprietor must receive permission for overtime work upon

stating the grounds for it. If the permission is for not more than 6 days, it must be sought of the communal council; if for a longer time, from the department of the interior.

14. Each permission for overtime work must be in writing and be posted in the workroom. The communal authorities and the department of the interior must inform each other of all permissions granted.

15. The administrative council is authorized to permit deviations from the labor period, provided the object of the present law is never violated in the case of those industries which are prosecuted under unusual conditions in respect to their methods of work or receipt of orders. This permission may be changed or withdrawn when the special circumstances no longer exist. If an establishment misuses the permission, the latter may be canceled.

Workrooms.—16. The workrooms must, in proportion to the number of persons there employed, be sufficiently large, light, dry, heated, and ventilated, and so arranged that the health of the working women will not be injured. All precautionary measures, as suggested by experience and in proportion to the state of the art, must be taken to prevent bodily accidents and other injuries to the health.

17. The local health authorities must see that these provisions are obeyed, and report annually to the general sanitary authorities concerning their action in this respect.

Labor and apprenticeship contracts—Shop regulations.—18. The first two weeks of employment will be considered as a probationary period, in the sense that during this period either party may sever the labor contract upon giving not less than 3 days' notice. After this time not less than 14 days' notice must be given, starting from pay day or Saturday. In the case of piecework, the notice must start from the completion of the work that has been begun, provided that the ordinary period of notice is not thereby lengthened or shortened more than 4 days. This length of notice may be lengthened or shortened by the shop regulations or special agreement, provided that the same length of notice is required by both parties.

19. The labor contract may be terminated upon justifiable grounds (*aus wichtigen Gründen*) before the time agreed upon. Concerning the justifiableness of these grounds, the judge will decide according to his judgment. If the rupture of the contract results from the violation of his contract obligations by one party, he must fully indemnify the other. Moreover, the economic consequences of a labor contract terminated before the expiration of the time agreed upon shall be determined by the judge according to his judgment in taking account of the circumstances and local customs.

20. Every working woman is entitled upon leaving to receive, if she desires it, a certificate setting forth the nature and duration of her employment.

21. Whoever desires to take a girl as an apprentice must make a written contract for that purpose with her and her father or representative. This contract must contain the obligation that the apprentice shall be properly instructed in her trade. The duration of the probationary and apprenticeship periods as well as the payment of the proper apprenticeship fee when there is such must also be specified; also the grounds and conditions upon which the contract may be terminated by one party before the termination of the period agreed upon.

22. Shop regulations concerning the labor periods, the conditions of

entering and leaving, as well as the payment of wages, must receive the approval of the department of the interior, and must be posted in workrooms in a conspicuous place. The department of the interior is authorized to draw up shop regulations where the scope or nature of a business seems to justify it. It may also order the revision of shop regulations where their application would give rise to bad conditions.

23. Fines must not be imposed except as provided for in the shop regulations, nor in excess of one-fourth of the daily wages of the person fined. A statement of the fines imposed must be prepared in which is entered the name of the person fined, the act of omission or commission for which the fine is levied, and the use made of the fine. All fines must be employed for the benefit of the working women.

24. Whoever violates the law, shop regulations, or special agreements must indemnify the other party (*Art. 110 u. ff. des Obligations-rechtes*). The competent judge shall fix the amount of the indemnity according to his judgment in view of the circumstances of the case.

Regulation of wages.—25. Wages must be paid in coin of the country, on a workday, and in the place of business. Where monthly or yearly salaries have not been agreed upon in writing, payment must be made at least every 14 days. Deductions from wages for rent, cleaning, heating, and lighting of the establishment, or for the rent or use of tools, are prohibited. Work material must not be charged for at a rate higher than its cost to the proprietors.

26. Wages may be retained to the extent of one-half the average weekly wages when such retention has been mutually agreed upon. In the same manner deductions may be made from wages for insurance purposes when mutually agreed upon.

27. The working woman must be informed of any reduction in wages in such a way that it will be possible for her to leave before the reduction goes into force.

28. Where the employer furnishes board and lodging it must be reckoned at the cheapest rate. The local health authorities must see that proper and healthy food and lodging are provided. Where the conditions are openly bad they may recommend to the department of the interior that the proprietor be prohibited from furnishing food and lodging to girl apprentices or working women.

Fines and executive provisions.—29. The proprietor is responsible for the observance of the provisions of this law in his establishment.

30. Infractions of sections 2 to 17, 20 to 23, and 25 to 28 by the proprietor can be punished by the city officials (*Stadthalteramt*) by fines of from 5 to 200 francs [\$0.97 to \$38.60].

31. Anyone may bring to the attention of the city officials and department of the interior infractions of this law.

32. In the case where a person disobeys the order that has been given him penalties may be imposed, and in case of continued disobedience the offender may be turned over to the criminal authorities (section 80, criminal code).

33. The execution of this law belongs to the department of the interior. An appeal from its orders may be made to the administrative council.

34. The communal councils are intrusted with the duty of seeing that the provisions of this law are observed in industrial establishments so far as this has not been given to the local health authorities by sections 17 and 28. They may delegate this duty wholly or partly to a special officer.

35. Copies of this law may be obtained gratuitously from the communal councils, and in placard form must be posted in each establishment in a conspicuous place.

36. This law goes into force January 1, 1895.

NEUFCHÂTEL.—On May 19, 1896, a law concerning working women was passed by the Canton of Neufchâtel. The provisions of this law are as follows:

1. All establishments and workshops in which one or more women are employed, and which are not subject to the Federal law concerning factories, are subject to the conditions imposed by articles 3 to 13 and article 22 of the present law.

2. All stores, shops, countinghouses, as well as hotels, inns, clubs, restaurants, and drinking saloons in which are employed one or more women are subject to the conditions imposed by articles 19 to 22 of the present law.

3. The present law does not apply to domestic workshops in which only members of a family are employed under the authority of the father or mother, or to agricultural enterprises, dwelling houses in which women are employed as domestic servants, or day laborers performing household duties.

4. The execution of this law is intrusted to the communal authorities, which, according to the needs and importance of the place, may confide the oversight of its application to a special officer. The cantonal inspectors of apprentices are charged, concurrently with the communal authorities, with the supervision of the general and uniform application of the law.

5. If the communes find it necessary to incur new expenditures in enforcing this law they shall have the right, according to the importance of the expenditure, to an equitable reimbursement, provision for which will be made by a credit, the amount of which will be determined each year by the State budget.

6. Young girls under 14 years of age must not be employed in establishments enumerated in section 1. However, those provided with a certificate of primary instruction instituted by the law relating to primary education may be employed after they are 13 years of age.

7. In extension of the rule applicable to apprenticed children, and provided for by article 11 of the law concerning the protection of apprentices, young girls under 15 years of age must not be employed in effective labor for more than 10 hours per day.

8. The hours of effective labor of women and girls over 15 years of age must not exceed 11 per day. On Saturdays, and the days before holidays, they must not exceed 10 hours, including the time worked in cleaning and arranging the shop. At least an hour must be allowed in the middle of the day for the principal meal.

9. Time which should be devoted to scholastic or religious instruction is always included in the hours of labor.

10. Work at night and on Sundays and holidays is prohibited. Work between the hours of 8 p. m. and 6 a. m. is considered night work.

11. However, for work recognized as urgent, and in certain special industries, this prohibition may be temporarily abrogated, and the communal authorities or their delegate may authorize at certain periods of the year extra hours of labor. This overtime work must not exceed

2 hours per day, and the number of days must not exceed a total of 50 per year.

12. Requests to work overtime must be addressed to the communal authorities or their delegate. The authorizations must be in writing, and inscribed in a special register by the communal authorities or their delegates. An appeal from the decisions of the communal authorities or their delegates may be made to the department of the interior.

13. The communal authorities or their delegate must see that places in which women are employed are always in a satisfactory state as regards cleanliness, lighting, and ventilation, and prescribe such measures and precautions as may be necessary. In factories and workshops which make use of mechanical apparatus and machinery, they must also prescribe such appliances and measures as are necessary for the security of the working women.

14. The council of state may prohibit the employment of women in those kinds of work that exceed their strength or expose their health or morality to danger.

15. Employers are particularly required to look after the observance of decency and the maintenance of good conduct in their establishments.

16. If shop regulations are in existence, they shall in no case provide for fines. The regulations must always be posted so that they can be easily seen in the workshop.

17. Employers are required to pay their working women at least fortnightly in cash, in legal-tender money. This provision shall not be set aside by a private agreement. In general, payment must be made on Saturday before noon. In the case of piecework, the conditions of payment until the completion of the work may be fixed by the parties. The retention of any part of the wages is prohibited.

18. There must be prepared each year, by means of a census, a statement in each commune of all establishments and shops subject to the provisions of the present law.

19. In stores and countinghouses where women are employed the hours of labor which are required of them must be divided by periods of rest, and they must always be given at least 9 hours uninterrupted rest at night.

20. In public establishments, hotels, inns, clubs, restaurants, and drinking places, the hours of labor of women there employed must be divided by periods of repose, and they must be given at least 9 hours uninterrupted rest at night. The communal authorities or their delegates may, in exceptional cases, authorize the abrogation of this rule. Girls under 18 years of age, other than the daughters of the proprietor of the establishment, shall not be allowed to serve the public. In no case shall the proprietor allege his ignorance of their ages as an excuse.

21. Women who are required to work at hotels, inns, clubs, restaurants, and drinking places on Sundays must be allowed on the four Sundays of the month two mornings and two afternoons leave.

22. Every person breaking any of the provisions of the present law or regulations or decrees that may be promulgated to insure its execution shall be punished by a fine of from 5 to 20 francs [\$0.97 to \$3.86]. The fine shall be imposed as many times as there are persons employed under conditions contrary to law, provided the total does

not exceed 500 francs [\$96.50]. In the case of a subsequent offense the fine may be doubled.

23. The council of state is directed to proceed to the formalities of the referendum with the view of insuring the eventual execution of the present law.

GLARUS.—Following is a law in relation to the protection of labor, passed by the Canton of Glarus May 8, 1892:

1. This law applies to all establishments regularly employing persons at industrial occupations for wages or as apprentices, which are not within the scope of the Federal factories act. It does not apply to agricultural occupations. The work of waiters in restaurants and sales people in stores, who are employed in waiting on customers and not engaged in industrial work, is considered in sections 11 to 14 of this law. Where there is a doubt whether an establishment comes within the scope of the present law, the decision lies with the military and police authorities, provided that an appeal may be made to the administrative council (*Regierungsrat*).

2. The working rooms must be well lighted and ventilated, dry, and, in general, in such a condition that the health of the persons working in them is not impaired. The machinery and other working appliances must be erected and maintained in the safest manner possible, and any injurious effects arising from the operations must be avoided as much as possible. The administrative council is authorized to make binding regulations from time to time in regard to this matter.

3. If the extent and nature of a business justify it, the proprietors of establishments coming within the scope of this law may be required to post in a conspicuous place in the workrooms regulations regarding the hours of labor, conditions of entry and exit, the payment of wages, etc. The approval of these regulations, as well as the settlement of all matters of this character, comes within the powers of the administrative council.

4. Unless otherwise agreed upon in writing, a notice of 14 days must be given by either party for a dissolution of the labor contract, and this only on a pay day or Saturday. A dissolution of the contract on shorter notice is only permitted for important reasons.

5. Written apprenticeship contracts must be made in all cases where apprentices are employed. This contract must show at least the trade, the term of apprenticeship, the fee, and the conditions under which a dissolution of the contract by one of the parties is permissible.

6. Wages must be paid at least once in 14 days in cash and in lawful money. Longer terms are permitted by mutual consent.

Fines shall only be levied if they are provided for in the regulations approved by the administrative council; they must not exceed one-half the day's wages of the person fined, and must be applied in the interest of the working people. Deductions from wages for goods spoiled shall only be made if the damage was intentional or was due to negligence.

7. The regular hours of daily labor must not exceed 11, and on days preceding Sundays and holidays 10 hours. At least an hour's intermission must be allowed at noon. Sunday and holiday labor is prohibited.

A temporary extension of the working-day until not later than 10 p. m. may be permitted by the communal councils, but only in cases

of absolute necessity and in exceptional cases, and without periodical repetition. For extensions continuing over a longer period than 14 days the permission of the administrative council is necessary. The total duration must not exceed 2 months in any year. Persons must not be employed overtime without their consent.

The exceptions permitting overtime do not apply to persons under 18 years of age. The latter must in no case be employed after 8 p. m.

8. The provisions regarding hours of labor do not apply to work which, on account of its peculiar nature, must be either begun before or finished after the normal working time, or which must immediately precede or follow the regular work of the establishment, provided that in every case such work is performed by persons over 18 years of age. In cases of doubt the administrative council shall decide, and, if necessary, after the hearing of the testimony of experts, whether the provisions of this paragraph should be applied in any particular case.

9. Women who have household duties to perform must be excused a half hour before the noon intermission unless the latter is at least 1½ hours long.

Women must not be employed for a period of 8 weeks before and after childbirth in any of the industries covered by this law. They must, when they return to work, show a certificate that at least 6 weeks have elapsed since their confinement.

10. Children who have not exceeded the age of 14 years must not be employed in industrial occupations either for wages or as apprentices.

11. Employees in stores or establishments dealing with customers may be employed as salesmen or saleswomen without further restriction than that they must be permitted an uninterrupted rest of 9 hours during the night.

12. Persons employed in serving guests in saloons, restaurants, or hotels may be employed as long as the police regulations permit the establishment to be open. In all cases, however, an uninterrupted rest of 9 hours at night must be allowed these employees.

13. The enforcement of this law is in the hands of the administrative council. An exact record must be made, with the assistance of the communal councils, of all establishments which come within the scope of this law. The administrative council is authorized, when necessary, to have periodical inspections made by experts. Officials charged with the execution of this law must, when requested, be given access to the establishments at any time.

14. Violations of the present law are punishable by a fine of from 10 to 500 francs [\$1.93 to \$96.50]. A repetition of an offense or a serious violation of the law may be punished by imprisonment not exceeding 14 days.

15. The cantonal council is charged with the enactment of the necessary regulations for carrying out the provisions of this act.

ARBITRATION TRIBUNALS.

The enactment of laws concerning the arbitration or conciliation of industrial disputes falls exclusively within the province of the Cantons. In only 4 has special legislation been enacted for the creation of industrial arbitration tribunals. In 2 of these, Geneva and Neuchâtel, provision has been made for councils of prudhommes after the French

model, while in the other two, Basel Town and Bern, arbitration tribunals of a somewhat different character have been created.

GENEVA.—This was the first Canton to take action in this direction. The creation of councils of prudhommes was provided for by a law passed October 3, 1883. This law referred only to disputes arising in industry and commerce, but its scope was extended in 1889 so that the councils now take cognizance of "disputes which arise between employers and employees, masters and workmen, masters and apprentices, employers and domestic servants, in all matters relating to the payment of wages, concerning the performance of work, and the apprenticeship contract." The composition and functions of these councils are as follows:

Each council consists of 30 members, 15 of whom must be employers and 15 workingmen. As far as possible they must represent the different branches of industry over which the council has jurisdiction. The employers and employees elect their representatives separately and by groups of industries. Only persons of Swiss nationality and in the possession of full political rights can vote or be elected to the council. Managers and directors of companies are regarded as employers. Members are elected for 2 years, but are reeligible. The method of voting is that by list (*scrutin de liste*). In general, the first Sunday in October is election day. When the membership of a council becomes reduced by a fifth part in consequence of deaths, resignations, or other causes, special elections must be held, provided ordinary elections will not be held within 6 months. A member becomes ineligible to perform the duties of his office if he ceases to follow his calling for one year, if he changes from employer to employee, or vice versa, and when he becomes insolvent.

There are 2 main classes of councils—those for manufacturing and commercial establishments, and those for agricultural affairs and private individuals. Each council elects by ballot a governing board, consisting of a president, vice-president, secretary, and vice-secretary. When the president or secretary is an employer the vice-president or vice-secretary must be an employee, or vice versa. The offices of president and secretary must be filled alternately by employers and employees.

For the transaction of business each council is divided into 4 bodies or sections: (1) Board of conciliation (*bureau de conciliation*), (2) tribunal proper (*tribunal de prud'hommes*), (3) chamber of appeals (*chambre d'appel*), and (4) a committee for supervising apprentices and looking after the sanitary arrangement of workshops. In order to avoid friction and to maintain the independence of the members, it is provided that an employer and his employee shall in no case serve upon the same section.

The board of conciliation is composed of an employer and an

employee, who preside in turn. Disputes are first brought before this body and the conciliation of the parties attempted. When this fails the board may act as a court of summary jurisdiction and pronounce final judgment in cases involving sums not exceeding 20 francs (\$3.86). When conciliation fails, or the sum involved exceeds 20 francs (\$3.86), the matter is brought before the second division of the council or tribunal proper. This body is composed of a president, 3 employers, and 3 employees. Witnesses may be heard on both sides and experts may be called in when necessary. Final decision is given in cases involving sums not exceeding 500 francs (\$96.50). In disputes involving a larger sum the case may be carried to the chamber of appeals within the next 5 days. This body is composed of a president, a secretary, 5 employers, and 5 employees, none of whom shall be persons who have taken part in the prior proceedings.

Provision is also made for a mixed court (*cour mixte*), to consist of 2 judges of the court of justice, nominated by that body, and 3 members of the council of prudhommes chosen from and by the chamber of appeals. Questions of jurisdiction or competence must always be first decided before a case is heard on its merits. Decisions on such points may be appealed from to the chamber of appeals, no matter what the value of the sum in dispute, or the parties may refer the matter to the mixed court as above described.

The sittings of the tribunal of prudhommes and the chamber of appeals are public and take place in the evening in places provided by the council of state. Each member is allowed a remuneration of 3 francs (\$0.58), and the president and secretary 5 francs (\$0.97) for each meeting. A member regularly summoned who, without good reason, fails to attend may be fined as much as 20 francs (\$3.86).

The special committee on apprentices and workshop hygiene, as its name implies, has general supervision over matters connected with apprenticeship contracts, or the material conditions under which work is performed. It is composed of 4 employers and 4 employees.

The members of the council, as has been said, are, as far as possible, elected from different groups of industries. These groups are (1) watch making, (2) jewelry, (3) building trades, (4) wood working, (5) metal working, (6) clothing trade, (7) food and chemicals, (8) paper and printing, (9) transportation, and (10) banking and commerce. A special supervisory committee is chosen for each group. From these bodies a central committee, consisting of 2 members from each, is elected to serve for 2 years. This central committee acts as a general governing board. It may, at the request of the council, appoint special committees, composed of members of the group or of persons not belonging to the councils at all, for the study of questions pertaining to national industry or commerce, and may institute investigations concerning the conditions of work as regards their healthfulness. The

councils may also be called together at the instance of the council of state, the grand council, or a majority of the presidents and vice-presidents of all the groups to deliberate upon questions of general interest relating to commerce and industry.

NEUFCHÂTEL.—The law providing for the creation of councils of prudhommes was passed November 20, 1885. Unlike the Geneva councils, which are created by the cantonal government upon its own initiative, these councils are only created by the council of state upon the request of the municipal authorities after the matter has been submitted to a vote of the people of the locality. One-half of the expenses resulting from the creation of the councils is borne by the State, the other half by the municipality. The councils decide all disputes arising between employers and employees and apprentices concerning the hiring of labor, the execution of work, and the apprenticeship contract, but they may not take cognizance of cases which do not relate to the relations of employer and employee, even though the disputes may arise between the parties mentioned.

Each council is composed of from 16 to 30 members, one-half of whom are elected by employers and the other half by employees, the different branches of commerce and industry of the locality being represented as far as possible. The members are elected for 3 years and are reeligible. Their duties are obligatory. Each council elects every 6 months, by secret ballot, a board consisting of a president, vice-president, secretary, and vice-secretary, all of whom must be members of the council. The presidency must alternately devolve upon an employer and an employee. When the president is an employer the vice-president must be an employee and vice versa. The same rule applies to the secretary and vice-secretary. A registrar is appointed by the council of state, his salary being mutually agreed upon by the council of state and the municipal council. He receives the requests for convocations, sends out the summonses and invitations, and notifies the members for the various sessions. Each council has a central office, which must be provided and furnished by the municipality.

The council of prudhommes consists of 2 bodies—a board of conciliation and a tribunal of prudhommes. The board of conciliation is composed of 2 members, an employer and an employee, who alternate in presiding over the meetings. All disputes must be submitted to the board within 2 days after the application has been filed with the registrar. The parties are summoned by letter. The sessions of the board of conciliation are not public. The conciliatory transactions are summed up in a report signed by the president and the parties to the dispute, and this act has the force of a judgment. Cases which can not be adjusted by the board of conciliation are sent before the tribunal of prudhommes.

The tribunal of prudhommes consists of a president and 4 members,

2 of whom must be employers and the other 2 employees. The sessions are presided over alternately by the president and vice-president of the council. If the parties do not appear voluntarily, the defendant may be cited to appear by means of a summons issued by the president. If one of the parties wishes to deny the competence of the tribunal to try the case, either on account of want of jurisdiction or because the matter in dispute is not amenable to the action of the court, he must announce the fact the moment his case is called. When such a declaration is made the president suspends the case and causes the registrar to give written notice to the president of the tribunal of the district. The latter calls both parties before him, and, after hearing them, decides finally upon the question of competence, and from this there is no appeal if the amount in dispute does not exceed 500 francs (\$96.50). His decision is transmitted to the central registrar, and the president of the tribunal declared competent proceeds to a renewal of the summons. When the subject in litigation exceeds 500 francs (\$96.50) the president of the tribunal transmits the case to the civil court of cassation, which gives its decision upon the written statement of the parties. If a party opposes the competence of the tribunal without a justifiable motive, he may be condemned by the judge to pay a fine not exceeding 100 francs (\$19.30).

When there is occasion for an inquiry the parties are free to bring witnesses or to have them summoned by the central registrar. Failure to attend on the part of witnesses may be punished by a fine not exceeding 10 francs (\$1.93). Witnesses are entitled to ordinary witness fees. If a case is subject to appeal to the Federal tribunal, a written summary of the testimony is made and read to the witnesses. Experts may also be called in to testify.

The judgments of the tribunal of prudhommes are pronounced during the session and are final in all cases coming before it except such as can be appealed to the Federal tribunal. The sessions of the tribunal of prudhommes are public. Each member is allowed a compensation of 1 franc (\$0.19) per session. The secretaries of the groups each receive a supplementary fee of 2 francs (\$0.39) per session. Without good cause, failure on the part of the prudhommes to attend regularly at the hearings is punished by a fine of 15 francs (\$2.90), to be imposed by the tribunal of prudhommes. The proceedings before the tribunals of prudhommes are gratuitous, except that the parties have to pay for the postage, the witness fees, and some other small charges.

In addition to the above-mentioned duties, each council of prudhommes chooses from among its members a committee whose special duty it is to watch over the execution of apprenticeship contracts and the professional instruction of apprentices. If the intervention of the committee does not produce the desired result, the matter is turned

over to the council, which if necessary places it before the tribunal of prudhommes.

Whenever requested by the council of state, the councils must meet in general assembly for the discussion of questions concerning industry or national commerce. The council of state is given power to take whatever measures are necessary to secure the formation and regular operation of councils of prudhommes.

BERN.—Arbitration tribunals, somewhat in the nature of councils of prudhommes, were provided for in the cantonal law of February 1, 1894. They have jurisdiction in the settling of disputes arising out of labor or apprenticeship contracts between manufacturers and master tradesmen on the one hand and journeymen, apprentices, and other employees on the other. Their decisions are final whenever the amount involved does not exceed 400 francs (\$77.20), and their jurisdiction excludes that of ordinary courts, although the law does not prevent contending parties from submitting their case to a referee. Employers and employees residing in communes where there are no councils of prudhommes may by mutual consent submit their dispute to some existing council to act as a referee. The councils of prudhommes are created by communes or groups of communes, with the approval of the administrative council. If a considerable number of persons petition for the creation of a council, and the communal government takes no action within six months or refuses the request, the administrative council may, if it is deemed advisable, direct a commune to create one.

For the purpose of creating a council of prudhommes the various industries are classified in groups, not exceeding 8 in number. An equal number of employers and employees, not exceeding 20 in all, is elected from each group as members of the council. They are elected for 3 years and are reeligible. All employers and employees who reside within the jurisdiction of the arbitration court, and who have the right of suffrage as citizens of the Canton, are eligible as electors or as members in their respective groups. Separate voting lists for employers and employees are prepared by the communal council or by the delegates of several communes when they have a council of prudhommes in common. Each group has its own voting lists, which must be opened 8 days before the elections. Service as members of the council of prudhommes is compulsory under the same rules as govern municipal officers, except that a member who has served 3 years may decline reelection for the succeeding term.

After the election of the members of the various groups they are called together in a general assembly, when they elect a president and vice-president, neither of whom can be an employer or employee, and a secretary and vice-secretary. The president presides at the general assemblies as well as at the sessions of the individual group tribunals.

In large districts two or more presidents and vice-presidents may be elected. The central secretary receives the complaints filed, issues the summonses, keeps a record of the proceedings of the general assemblies and of the group sessions, and attends to other clerical work incident to the business of the council.

The tribunal for the trial of cases in each group consists of 2 members, excluding the presiding officer, if the amount involved in the dispute does not exceed 100 francs (\$19.30), and of 4 members if that amount is exceeded, an equal number in each case being employers and employees. The members of the council are called upon in rotation for service on the tribunal, and a failure to attend or tardiness at the sessions, when called, may be punished by a fine of from 2 to 20 francs (\$0.39 to \$3.86), to be imposed by the president. The tribunals of the council of prudhommes are under the supervision of the superior court (*Obergericht*) of the Canton, and must make an annual tabular report to the latter regarding its work.

The sessions of the tribunal, except when attempting conciliation, are public and are held in rooms furnished by the commune. Complaints may be filed either verbally or in writing, and the defendant must be notified at least one day before the time set for trial. Parties to a dispute may also, by mutual consent, bring their case before the tribunal at one of the regular sessions without the previous issuance of a summons. The parties to a dispute must appear in person and state their case verbally unless excused on account of sickness or other necessary cause, in which case they may be represented by members of their families or by fellow-workers. The services of attorneys are not permitted.

If the plaintiff fails to appear at the time set for the trial the case is dismissed upon the request of the defendant. If the defendant fails to appear judgment is rendered in favor of the plaintiff at the latter's request. If neither party appears the case lapses, unless a request is made to the central secretary for a new hearing. Whenever a case is dismissed or judgment rendered in default on account of the absence of one or the other of the parties, the absentee must be notified in writing within 3 days. Request for a reinstatement of the case to its former status may be made within 3 days after receiving notice, and if the costs of the former session are paid and a sufficient excuse is given for the nonappearance at the former session the case may be retried.

When both parties appear the tribunal must first attempt to effect a conciliation. If successful, the agreement reached must be put in writing and signed by the president of the court and by both parties, when it has the force of a judgment; if otherwise, the case must be immediately tried, and after hearing both parties the court must either render judgment or direct what further evidence is necessary in the

case. Only in exceptional cases will the trial be postponed for such purposes. The proceedings are conducted according to the rules which apply in civil law courts. Witnesses and experts may be summoned if desired by the tribunal.

Objection to the jurisdiction of the council must be made before the case is tried. If the question of competence relates to the matter at issue, and not to the territorial jurisdiction, an appeal from the decision of the council may be taken to the court of appeals. If the amount involved does not exceed 100 francs (\$19.30), the council declaring itself competent may proceed with the case and render judgment, which, however, can not be executed until its competency is affirmed by the higher court. Members of the court may also be challenged on account of their relation as employer or employee to one of the parties, or for other reasons which would bar persons from sitting in judgment in other courts of law.

When the hearing of the case has been completed a vote is taken to determine the findings, after which both parties are formally notified. Both the vote and the discussion are public. A record is made of the proceedings of each case, which must show the names of the members of the tribunal, the parties to the case, a brief summary of the matter in dispute, the findings, and the costs of the case. The judgment is signed by the president.

Proceedings may be had in the court of appeals to have the judgment set aside upon the ground that the complainant was not notified of the date of trial, and therefore was not present; that the court was not properly constituted; that the complainant was refused a proper hearing; that the defeated party was not capable of making a valid contract and had no legal guardian, and that the judgment was greater than asked for. If the court of appeals finds the complaint well founded the case is remanded, but none of the members of the former tribunal can participate in the new trial. If within a year after judgment has been rendered by an arbitration tribunal new facts are discovered which are considered of sufficient importance, a case may be reopened and a new judgment rendered.

The communal government determines the amount of compensation to be paid the presidents, vice-presidents, and central secretary and vice-secretary, as well as the per diem of members of the councils of prudhommes. The witness and expert fees are fixed by the tribunal. A court fee of from 1 to 10 francs (\$0.19 to \$1.93) is charged, which must be paid by the defeated party. When this, together with the fines, etc., does not cover the court costs the excess must be paid, in equal shares, by the commune and by the State.

BASEL TOWN.—The creation of industrial arbitration courts was provided for by the law of April 29, 1889. This law also makes provision regarding the conciliation and trial of ordinary civil actions.

That portion of the law relating to industrial disputes, which alone is of interest in this connection, provides that all civil disputes between proprietors of manufacturing and commercial establishments and journeymen, apprentices, or other persons employed by them, arising out of their relations as employers and employees, shall be tried before arbitration courts, unless both parties agree to have the case brought before an ordinary civil tribunal. The decision of the arbitration court is final, unless the amount involved in the dispute exceeds 300 francs (\$57.90).

The arbitration court provided for by this law consists, when sitting, of a presiding judge selected from among the presidents of the civil courts and two associate judges, one of whom must be an employer and the other an employee.

For the purpose of creating these courts the various industries are divided into industrial groups. The administrative council determines the number of such groups and the manner of grouping. Each group elects 6 employers and 6 employees to act as judges, these judges holding office 3 years and being reeligible. For each case that comes before an arbitration court the presiding judge selects 2 associates from among the judges elected in the group to which the disputants belong, due regard being also had to the character of the dispute and the alternating of the persons elected as judges. The records of the proceedings of these courts are kept by the clerk of a civil court or his substitute.

All persons who have the right of suffrage as citizens of the Canton and who are represented in the respective groups may vote for the judges. For this purpose separate voting lists are prepared for the employers and the employees in each group. Persons elected as judges must be eligible as voters and must be at least 24 years of age.

Before proceeding to the trial of a case an attempt must be made by the court to bring about a conciliation. If an agreement is thus reached it must be put in writing and signed by both parties, when it acquires the force of a judgment. If the attempted conciliation fails, the trial proceeds. In the trial of a case the same general rules apply as in ordinary civil courts. The parties are each summoned and heard and must appear in person, unless excused by the court on account of sickness or other adequate cause.

Appeals may be had from the decisions of arbitration courts as in the case of other civil actions. When objections or counterclaims arise which lie beyond the competence of the arbitration court the latter must nevertheless render its decision on the main question, but must defer the execution of the judgment until some competent court has acted upon the counterclaim. If the defendant does not bring suit in such other court within a brief time, to be fixed by the judge, the latter proceeds with the execution.

No court fees are required from either party. The judges receive a compensation of 2 francs (\$0.39) for each session which they attend.

LABOR BUREAU.

Though Switzerland possesses no labor bureau, properly speaking, mention should be made of the Secrétariat Ouvrier Suisse, which in a measure performs the duties of such an office. This body was constituted December 20, 1886, at Bern. . The Secrétariat is an adjunct of the federation of labor organizations, but has an official standing, as it is subsidized by the Government, which directs it to make certain reports. Its publications consist of annual and occasional special reports.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

RHODE ISLAND.

Eleventh Annual Report of the Commissioner of Industrial Statistics, made to the General Assembly at its January session, 1898. Henry E. Tiepke, Commissioner. vii, 404 pp.

This report is devoted entirely to the farming industry. The subjects treated are: Agriculture, 256 pages; poultry raising, 14 pages; bee keeping, 2 pages; farm lands, 10 pages; laws relating to the property and interests of farmers, 102 pages.

The statistics presented in this report are reproduced from the Rhode Island State census of 1895, excepting those relating to abandoned and partially abandoned farm lands which are the result of a special investigation by the bureau. This investigation, which is reported in the chapter on farm lands, disclosed the existence of 200 abandoned farms with farm buildings, having an assessed valuation of \$167,750; 83 abandoned farms without buildings with an assessed valuation of \$41,175, and 103 partially abandoned farms (the buildings remaining occupied) with an assessed valuation of \$157,400. It was shown that 7.4 per cent of the farm properties of the State were either entirely or partially abandoned.

The report also contains a statement of the production and value of certain farm products in Rhode Island from 1887 to 1897, prepared by the statistician of the United States Department of Agriculture.

WASHINGTON.

First Biennial Report of the Bureau of Labor of the State of Washington, 1897-1898. Division I. W. P. C. Adams, Commissioner. 185 pp.

Division I of the present report relates to the work of the bureau of labor, the other two divisions being the reports of the factory, mill, and railroad inspector, and of the coal-mine inspector, respectively. The following subjects are treated in the report of the commissioner of labor: Origin of labor bureaus, 2 pages; physical geography of the State, 7 pages; description of the State by counties, 61 pages; produc-

tions of the State, 38 pages; gold and silver mining and smelting, 22 pages; manufactures, 18 pages; free employment bureaus, 5 pages; commerce, 17 pages; climate, 7 pages.

DESCRIPTION OF COUNTIES.—This chapter contains an account of each county, showing its geographical and climatic features, population, products, and resources. Summary tables are presented showing for each county the public expenditures, births, deaths, and marriages, liquor licenses issued and revenue derived therefrom, and statistics of prisons, jails, and asylums; also for the State statistics of public schools and of newspapers, journals, and job offices, together with a statement of the average wages of printing-office employees.

PRODUCTIONS OF THE STATE.—An account is given of some of the leading natural products of the State, their development, and present condition. These include wheat, flax, live stock, sheep, meat packing, fish, logs, hops, and bulbs. Statistics of assessed and nonassessed lands in the State are also given.

There were, in 1898, 30 fish canning establishments reported in operation with a capital stock of \$1,133,900. They gave employment to 2,150 persons, whose aggregate wages were \$432,850. Estimates deduced from reports of 27 logging camps gave a total of 2,530 persons employed. Their average wages were \$2.17 per day. About 1,700 men were employed for two-thirds of the year in cutting shingle bolts. Their earnings averaged \$1.95 per day.

GOLD AND SILVER MINING AND SMELTING.—This chapter contains a brief description of the gold and silver producing sections of the State, a report by a United States assayer upon the mining industry of Washington in 1897, and an article on placer mining; an account of the smelting industry, with statistics of smelting in the State; and statistics of the coinage of the United States mints and of the volume and distribution of money.

Skilled miners in gold and silver mining received from \$2.75 to \$3.50, and laborers from \$2 to \$2.50 per day. The average daily wages in leading smelting works were, for skilled labor, from \$2.15 to \$4, and for ordinary labor, from \$1.50 to \$2.

MANUFACTURES.—An account is given of each of the leading manufacturing industries of the State, including such statistics as were obtainable by the bureau. The industries thus treated were lumber, lime, and clay manufacturing, flouring mills, and breweries.

A total of 222 sawmills and 146 shingle mills were reported to the bureau, with an estimated output, in 1898, of 980,000,000 feet of lumber and sawed timber and 3,125,320,000 shingles; 2,768 workmen were employed in the sawmills and 2,346 in the shingle mills. The average running time during the year was 306 days in the sawmills and 234 days in the shingle mills.

Sixty-three flour mills were reported, but of these only 12 made returns to the bureau. There were 29 breweries in the State, having an aggregate value of \$1,782,750, with an annual output of 189,201 barrels of beer, and they employed 263 skilled workmen. Two lime manufacturing companies reporting produced about 180,000 barrels of lime during the year, and gave employment to 137 persons.

FREE EMPLOYMENT BUREAUS.—An account is given of the municipal employment office at Seattle, prepared by the municipal labor commissioner. This bureau, during the year 1897, found employment for 11,626 persons.

FIRST ANNUAL REPORT OF THE BOARD OF MEDIATION AND ARBITRATION OF CONNECTICUT.

First Annual Report of the State Board of Mediation and Arbitration of Connecticut, 1895. Andrew J. Coe, George A. Parsons, and Gilbert L. Smith, Members. 4 pp.

The above report was made twelve days after the first meeting and organization of the board, and hence but little work had been accomplished. Only one case was considered by the board, and this was satisfactorily settled through its mediation.

FIRST BIENNIAL REPORT OF THE INDIANA LABOR COMMISSION.

First Biennial Report of the Indiana Labor Commission, for the years 1897-1898. L. P. McCormack and B. Frank Schmid, Commissioners. 156 pp.

The Indiana Labor Commission consists of two commissioners, appointed for two years, (a) whose duty it is to offer their services as mediators between the parties to labor controversies. Whenever mediation fails, they are required to make an effort to induce the contending parties to submit their differences to a board of arbitration. This board, if constituted according to the provisions of law, consists of the two commissioners and the judge of the circuit court of the county in which the dispute arises, and two other members may be added, if the parties so agree, one to be named by the employer and the other by the employees in the arbitration agreement.

The present report consists of a résumé of the experience and work of the commission, a detailed statement of each of the investigations and settlements made, and copies of laws relating to arbitration and conciliation in the different States.

During the 18 months of its existence the commission investigated 46 labor controversies, of which 39 were strikes and lockouts, 2 were boycotts, and 5 were cases where strikes were prevented by the timely negotiations of the commissioners. The 2 boycotts were raised

^aBy the law approved February 28, 1899, the commissioners are appointed for 4 years.

through the mediation of the commission. Of the 39 strikes and lockouts investigated, in 7 instances the commission failed to adjust the differences, in 4 cases agreements were reached without the mediation of the commission, and in 28 cases the settlement was due directly to such mediation. In 19 of the last-mentioned cases the employees secured either advanced wages or other improved conditions.

THIRTEENTH ANNUAL REPORT OF THE BOARD OF ARBITRATION AND CONCILIATION OF MASSACHUSETTS.

Thirteenth Annual Report of the State Board of Arbitration and Conciliation of Massachusetts, for the year ending December 31, 1898.
Charles H. Walcott, Chairman. 198 pp.

This report consists of an introduction and detailed account of 22 cases dealt with by the board. An appendix contains copies of laws relating to State and local boards and other institutions of conciliation and arbitration in the United States.

During the year 1898 the controversies of which the board took cognizance involved persons whose aggregate yearly earnings were estimated at \$4,227,570. The total yearly earnings in the establishments involved, under ordinary conditions, were estimated at \$7,849,703. The expense of maintaining the State board of arbitration and conciliation for the year was \$8,714.07.

SIXTH ANNUAL REPORT OF THE BOARD OF ARBITRATION OF OHIO.

Sixth Annual Report of the Ohio State Board of Arbitration, to the Governor of the State of Ohio, for the year ending December 31, 1898.
Joseph Bishop, Secretary. 76 pp.

This report contains a review of some existing labor and industrial problems, statistics of the work of the board of arbitration since its organization, etc., a detailed account of each case considered during the year 1898, and copies of the law and rules of procedure of the board.

Since its organization in May, 1893, the board has dealt with 83 industrial disputes, of which 74 were strikes and 9 were lockouts. The causes of these disputes and the results are shown for each year from 1893 to 1898 in the following table.

DISPUTES DEALT WITH BY BOARD OF ARBITRATION, BY CAUSES AND RESULTS,
1893 TO 1898.

Year.	Disputes considered.			Cause of dispute.					Result.	
	Strikes.	Lock-outs.	Total.	Reduction of wages.	Demand for increased wages.	Refusal to recognize unions.	Refusal to reinstate discharged men.	Other causes.	Settled.	Not settled.
1893 (a) . . .	10	-----	10	6	-----	2	-----	2	9	1
1894	12	2	14	11	3	-----	-----	-----	11	3
1895	12	-----	12	4	3	-----	1	4	11	1
1896	9	2	11	3	3	2	1	2	9	2
1897	15	4	19	7	8	1	1	2	14	5
1898	16	1	17	7	4	2	2	2	14	3
Total . . .	74	9	83	38	21	7	5	12	68	15

a May to December.

The above statement does not include many strikes dealt with and settled by the board in which the number of employees involved was less than 25 persons and which, therefore, did not technically come under the board's jurisdiction.

BIENNIAL REPORT OF THE BOARD OF ARBITRATION AND CONCILIATION OF WISCONSIN.

Biennial Report of the State Board of Arbitration and Conciliation, for the years 1897 and 1898. R. H. Edwards, Thomas Waddell, G. E. Willott, Members. 102 pp.

This report contains a review of the work of the board during the years 1897 and 1898, a detailed account of each case considered, and reproductions of arbitration and mediation laws in Wisconsin and other States.

The controversies of which the board took cognizance during the two years involved employees whose yearly earnings were estimated at \$2,779,500. The aggregate earnings under ordinary conditions in the establishments involved were estimated at about \$9,500,000. The entire expenses incurred by the board during the two years were \$1,578.27.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

AUSTRIA.

Ergebnisse der in Oesterreich vorgenommenen Gewerbezahlung nach dem Stande vom 1 Juni 1897 (samt den in diesem Stande bis zum 31 Mai 1898 vorgefallenen Veränderungen). Verfasst und herausgegeben vom Arbeitsstatistischen Amte im k. k. Handelsministerium. 1899. xl, 381 pp.

This report of the bureau of labor statistics of the Austrian ministry of commerce gives the results of the industrial census of June 1, 1897, together with such changes as were ascertained up to and including May 31, 1898. The report is confined to an enumeration of establishments and does not include employees or their occupations. The data were obtained through the chambers of commerce and industries, and cover returns from Upper Austria, Lower Austria, Salzburg, Styria, Carinthia, Carniola, Trieste, Goritz, Istria, Tyrol, Vorarlberg, Bohemia, Moravia, Silesia, Galicia, Bukowina, and Dalmatia. Only such branches of industry are included as come within the scope of the industrial code (*Gewerbeordnung*) and the regulations regarding itinerant occupations. These are manufacturing and mechanical industries, trade, and transportation, and some classes of personal service.

The report consists of an introduction and an analysis, copies of instructions given and schedules used, a classified list of industries, and a series of six tables showing the detailed returns. The three principal tables relate, respectively, to the number of establishments on June 1, 1897, the density of industries with regard to area and population, and the changes in the number of establishments from June 1, 1897, to May 31, 1898. The returns, as shown for each province and for the entire country, are classified according to the nature of the industry into 25 principal and 363 minor groups.

The enumeration shows that there were in Austria on June 1, 1897, 883,226 industrial establishments (including those of persons carrying on itinerant trades on their own account). The following table shows the distribution of these establishments among the 25 principal groups of industries:

INDUSTRIES AND ESTABLISHMENTS ON JUNE 1, 1897.

Industries.	Estab-lish-ments.	Industries.	Estab-lish-ments.
Raw products (a).....	1, 713	Food products.....	92, 384
Smelting and refining.....	47	Hotels, restaurants, and saloons.....	125, 587
Stone, clay, earthenware, and glass.....	16, 417	Chemical products.....	4, 906
Metal work.....	48, 276	Building trades.....	29, 053
Machinery, tools, and transportation ap- pliances (b).....	20, 766	Printing and publishing.....	3, 436
Wood working.....	53, 792	Heat, light, and power stations.....	82
Caoutchouc, gutta percha, and cellu- loid goods.....	86	Itinerant trades (c).....	2, 383
Hides, leather, hair, and feather prod- ucts.....	10, 429	Merchants and dealers.....	261, 628
Textiles.....	17, 591	Merchants and dealers, itinerant.....	22, 367
Upholstering, decorating, and carpet cleaning.....	2, 409	Agencies, commission and warehouse, etc.....	7, 374
Clothing, shoes, hats, millinery, and cleaning.....	134, 183	Banks, pawnshops, loan and insurance companies, etc.....	2, 259
Paper and paper goods.....	3, 636	Transportation, etc. (d).....	19, 834
		Other industries (e).....	2, 638
		Total.....	883, 226

a Comprises flower, vegetable, and nursery products, cattle raising, animal products, turf and sea-
salt industries, and the fisheries.

b Comprises machine and car shops, ship yards, manufactures of clocks and watches, carriages and
wagons, tools, musical and other instruments, and electrical supplies.

c Comprises itinerant grinders, glaziers, tinkers, broom makers, umbrella menders, rag pickers, etc.

d Comprises land and water transportation, private telegraphs, telephone and messenger services,
undertakers, information bureaux, and establishments for renting machinery, tools, clothing, cos-
tumes, decorations, etc.

e Comprises bath and massage establishments, chiropodists, dog and horse shearers, and musical
services.

Of the establishments enumerated, 564,743 were classed as produc-
tive industries, 278,158 as mercantile, 19,834 as transportation, and
2,638 as other industries. The enumeration included, in addition to
these, 2,383 persons carrying on itinerant trades, and 15,470 peddlers,
etc. Of the minor groups of productive industries the most numer-
ously represented were shoemaking, with 60,314 establishments, men's
and boys' clothing, with 38,500 establishments, furniture and fancy
woodwork, with 28,350 establishments, butchers, with 27,189 establish-
ments, and flour and grist mills, with 25,403 establishments. Among
mercantile establishments those engaged in handling food and food
products were most numerous.

The enumeration in many instances considered as separate estab-
lishments two or more industries conducted as one establishment,
which could not come under the same category in the classification,
such as flour mills and bakeries, saloons and groceries, etc. A table
is given showing all such establishments, together with a list of the
industries conducted in each. The table shows a total of 18,384 estab-
lishments of this character.

The table showing the density of industries gives the number of
establishments per 100 square kilometers (38.6 square miles) and per
100,000 inhabitants for each of the minor groups of industries in each
district and province and for the country as a whole, the total popula-
tion being based upon the census of 1890.

The changes ascertained from the time of the industrial census of
June 1, 1897, until May 31, 1898, are likewise shown for each minor
group of industries in each district and province and in the whole of

Austria. These returns show that during this period 83,562 establishments were newly created, 61,898 were discontinued, and 7,841 underwent other changes, such as change of ownership, discontinuance and resumption of business, etc., leaving a net increase of 21,664 establishments. On the other hand, the growth in the number of establishments from December 31, 1890, until June 1, 1897, was 94,270, of which 43,234 were engaged in productive and 51,036 in mercantile industries.

GREAT BRITAIN.

Sixth Annual Report on Changes in Wages and Hours of Labor in the United Kingdom. 1898. lxxviii, 267 pp. (Published by the Labor Department of the British Board of Trade.)

The changes in the market rates of wages and recognized hours of labor of working people in 1898, recorded in the present report, are based upon 1,600 returns from employers and employers' associations, 1,150 from trade unions, 600 from local correspondents, and 900 from official sources. The changes in 1898, both with regard to wages and hours of labor, have been generally favorable to the working people. The following comparative statement summarizes the principal data contained in the returns for the years 1894 to 1898, inclusive:

CHANGES IN RATES OF WAGES AND HOURS OF LABOR, 1894 TO 1898.

Items.	1894.	1895.	1896.	1897.	1898.
Changes in rates of wages:					
Increases.....	608	624	1,471	1,411	1,345
Decreases.....	171	180	136	107	61
Total.....	779	804	1,607	1,518	1,406
Separate individuals affected—					
By increases in rates of wages.....	175,615	79,867	382,225	560,707	1,003,290
By decreases in rates of wages.....	488,367	351,896	167,357	13,856	11,865
By changes, leaving wages same at end as at beginning of year.....	6,414	4,966	58,072	22,882	14
Total.....	670,386	436,718	607,654	597,444	1,015,169
Average weekly increase in rates of wages.....	α \$0.380	α \$0.314	\$0.218	\$0.259	\$0.385
Changes in hours of labor:					
Increases.....	2	12	22	7	9
Decreases.....	219	129	223	247	193
Total.....	221	141	245	254	202
Separate individuals affected—					
By increases in hours of labor.....	128	1,287	73,616	1,060	1,277
By decreases in hours of labor.....	77,030	21,448	34,656	69,572	37,772
Total.....	77,158	22,735	106,271	70,632	39,049
Average weekly reduction in hours of labor.....	4.04	1.94	0.73	4.03	2.10

α Decrease.

The data shown in the above table as well as in the tables which follow do not include returns regarding agricultural laborers, seamen, and railroad employees, which were differently ascertained and are separately treated in the report.

CHANGES IN RATES OF WAGES.—The unit adopted for comparison is the rate of wages for a full week's work, exclusive of overtime, at the end of 1898, compared with a similar week at the end of 1897.

The year 1898, like the two preceding, was one of rising wages, all the principal groups of industries excepting textiles showing an advance. Of 1,015,169 persons affected by wage changes in 1898, 1,003,290 had their wages increased and but 11,865 suffered a reduction. The net advance per week per employee affected by changes in wages was 1s. 7d. (\$0.385). It is interesting to note that of the 1,015,169 persons whose wages were changed, only 52,035, or 5 per cent, were involved in strikes owing to this cause. The changes in the case of 78 per cent of the employees were the results of direct negotiation; in 17 per cent of the automatic action of sliding scales, and in 5 per cent of arbitration, mediation, or other forms of conciliation.

The great increase in the number of persons whose wages were advanced in 1898 was due largely to a general rise in miners' wages throughout the Kingdom, the group of mining and quarrying showing a total of 673,905 individual employees whose wages were increased. This will be seen in the following table giving, by industries, the number of changes in the rates of wages in 1898 and the number of employees affected:

NUMBER OF INCREASES AND DECREASES IN WEEKLY WAGES, AND EMPLOYEES AFFECTED, BY INDUSTRIES, 1898.

Industries.	Changes.			Employees affected.			
	In-creases.	De-creases.	Total.	Wages increased.	Wages de-creased.	Wages same at end as at beginning of year.	Total.
Building	503	.....	503	74,725	.....	.....	74,725
Mining and quarrying	82	4	86	673,905	.....	.....	673,905
Metal, engineering, and ship-building	454	28	482	212,261	3,295	14	215,570
Textile	28	18	46	3,376	5,602	.....	8,978
Clothing	12	5	17	1,065	1,500	.....	2,565
Miscellaneous	124	6	130	25,819	1,468	.....	27,287
Employees of public authorities ..	142	.....	142	12,139	.....	.....	12,139
Total	1,345	61	1,406	1,003,290	11,865	14	1,015,169

In the case of each group of industries in 1898, the number of changes resulting in an increase of wages greatly exceeded the number resulting in a decrease. The same is true with regard to the number of persons affected, with the exception of the groups of textiles and clothing. In the building trades and among employees of public authorities there were no changes resulting in reductions in wages.

The net results of these changes in rates of wages are shown by industries for the years 1894 to 1898 in the following table:

AVERAGE INCREASE IN RATES OF WAGES, BY INDUSTRIES, 1894 TO 1898.

Industries.	Average increase per employee per week.				
	1894.	1895.	1896.	1897.	1898.
Building	\$0.345	\$0.411	\$0.502	\$0.517	\$0.502
Mining and quarrying	a. 421	a. 461	a. 127	.132	.416
Metal, engineering, and shipbuilding	a. 157	.006	.370	.269	.279
Textile	.112	.046	.020	.041	a. 086
Clothing	.335	.502	.314	.476	.091
Miscellaneous	a. 076	a. 127	.416	.507	.390
Employees of public authorities	.360	.390	.294	.360	.346
All industries	a. 330	a. 314	.213	.259	.386

a Decrease.

The average net increase in wages per employee was greater for 1898 than for any other year of the period. The building trades in 1898, as in the two preceding years, show the greatest increase per employee, namely, 2s. 4d. (\$0.502). In the group of mining and quarrying industries where reductions were reported in 1894, 1895, and 1896, and but a slight advance in 1897, an average net increase of 1s. 8½d. (\$0.416) was recorded in 1898. The groups of building trades, clothing, and employees of public authorities show an unbroken succession of net increases in rates of wages for each year of the period.

In addition to the above statistics of industries for which a uniform method of collecting and presenting data has been followed, there are other groups, namely, agricultural laborers, railway employees, and seamen for which it was not practicable to obtain returns showing the exact number of persons who were actually affected by wage changes during the year, and hence other methods had to be resorted to.

In the case of ordinary agricultural laborers in England and Wales, information was obtained regarding the current rates of weekly cash wages in January and June, 1898, and these rates were compared with the rates returned for corresponding dates in 1897. The returns thus received show a continued improvement in the wage conditions. The districts in which an increase in wages was reported for 1898 contained 214,297 laborers, or nearly 3 times as many as were reported for similar districts in 1897. The number of laborers in districts where wages fell was only 2,740 in 1898 as compared with 4,932 in the previous year. The total net effect of these changes was an increase of £7,190 (\$34,990) per week, or 8d. (\$0.162) per head in 1898, compared with £2,411 (\$11,733) per week, or 6½d. (\$0.132) per head in 1897. Calculated on the total number of agricultural laborers in England and Wales, the rise per head in 1898 amounts to 2½d. (\$0.046) per week compared with a rise of ¾d. (\$0.015) per week in 1897, and of ¼d. (\$0.003) per week in 1896, and a fall of ¾d. (\$0.015) per week in 1895.

Information received from Scotland and Ireland shows but very slight changes in rates of wages of agricultural laborers.

The monthly wages of able seamen, firemen, and trimmers employed on steamships engaged in foreign trade showed the following increases: Able seamen, from 77s. 9d. (\$18.92) in 1897 to 79s. 2d. (\$19.26) in 1898, or 1s. 5d. (\$0.34); firemen and trimmers, from 82s. 10d. (\$20.16) in 1897 to 84s. 1d. (\$20.46) in 1898, or 1s. 3d. (\$0.30). The monthly wages of able seamen on sailing vessels show a decrease from 57s. 6d. (\$13.99) in 1897 to 56s. 7d. (\$13.77) in 1898, or 11d. (\$0.22). The rates of wages given are in addition to food.

The information concerning railway employees is shown in the form of actual earnings, as the remuneration is usually regulated by graduated scales of pay rather than by fixed wage rates. Returns are published from 29 companies, employing altogether 94 per cent of the railway employees in the United Kingdom. The returns summarized in the following table cover the number of employees and the average wages for the first week in December of each year from 1896 to 1898 in the passenger, freight, locomotive, and machinery construction departments:

AVERAGE WAGES PAID RAILWAY EMPLOYEES IN 29 COMPANIES FOR THE FIRST WEEK IN DECEMBER, 1896, 1897, AND 1898.

Districts.	Compa- nies.	1896.		1897.		1898.	
		Employ- ees.	Aver- age wages.	Employ- ees.	Aver- age wages.	Employ- ees.	Aver- age wages.
England and Wales	16	324,055	\$5.94	339,883	\$6.05	353,785	\$6.11
Scotland	5	39,218	5.52	40,871	5.46	41,148	5.51
Ireland	8	16,841	4.56	17,354	4.72	17,371	4.90
Total	29	380,114	5.84	398,108	5.94	412,304	6.00

While the above table shows a net increase in average earnings, the returns from 8 out of the 29 companies, employing 122,268 persons, indicated a decrease in 1898.

CHANGES IN HOURS OF LABOR.—The year 1898 shows a continued net reduction in the hours of labor, but neither the number of persons affected nor the reduction was as marked as in the preceding year. Of 202 changes reported in the hours of labor in 1898, all but 9 resulted in a reduction. The hours were reduced in the cases of 37,772 persons and increased in the cases of 1,277. The net effect on the 39,049 employees was an average reduction of a little over 2.1 hours per week.

The following table shows for the years 1894 to 1898, inclusive, the number of employees affected by changes in the hours of labor, classified according to the extent per week of such changes:

EMPLOYEES AFFECTED BY CHANGES IN HOURS OF LABOR, BY EXTENT OF CHANGE PER WEEK, 1894 TO 1898.

Year.	Employees whose hours per week were—								Total.
	Increased.		Decreased.						
	Under 1 hour.	1 hour or over.	Under 1 hour.	1 or under 2 hours.	2 or under 4 hours.	4 or under 6 hours.	6 or under 8 hours.	8 hours or over.	
1894.....		128	2,686	4,141	37,535	9,536	20,504	2,628	77,158
1895.....		1,287	2,961	9,675	5,235	1,925	1,229	422	22,735
1896.....	71,899	1,717	4,871	10,695	11,939	2,200	3,801	1,649	108,271
1897.....		705	355	9,468	30,636	11,534	6,303	5,658	70,632
1898.....		944	333	10,213	8,553	13,871	2,710	2,260	39,049

Over one-half of the persons affected by changes in hours of labor in 1898 were employees in the building trades, but the net reduction per week per employee was comparatively small in that industry. But few persons were affected by changes in the hours of labor in the mining and quarrying and in the textile groups of industries. This is shown in the following table, giving, by industries, the number of changes in the hours of labor and the number of employees affected during the year 1898:

NUMBER OF INCREASES AND DECREASES IN HOURS OF LABOR, AND EMPLOYEES AFFECTED, BY INDUSTRIES, 1898.

Industries.	Changes.			Employees affected.			Decrease per employee in average weekly hours of labor.
	In-creases.	De-creases.	Total.	Hours in-creased.	Hours de-creased.	Total.	
Building	4	107	111	994	18,818	19,812	1.32
Mining and quarrying.....		5	5		786	786	3.70
Metal, engineering, and shipbuilding..	3	25	28	122	4,900	5,022	2.88
Textile		1	1		42	42	3.75
Clothing	1	4	5		2,544	2,599	1.87
Miscellaneous	1	38	39	106	8,862	8,968	2.85
Employees of public authorities.....		13	13		1,830	1,830	4.26
Total	9	193	202	1,277	37,772	39,049	2.10

During the year 1898 an 8-hour day was obtained in the cases of 2,099 employees, 12 of whom were in the public service. A return from an 8-hour day to longer hours of labor occurred in the cases of 146 employees.

PIECE PRICE LISTS AND SLIDING SCALES.—In 1898 11 new piece price lists were reported to the department, 7 lists in operation were amended, and 5 lists previously existing were added to. These lists, which are given in the report, were for the building trades, metal,

textile, boot and shoe, tailoring, transportation, printing, wood-work ing, glass bottle, and leather industries. New sliding scales are given for iron workers, blast-furnace men, and coal miners. The report also contains specimens of mutual agreements other than piece price lists made in 1898, and lists of sliding scales, piece price lists, and other mutual agreements in operation in 1899.

NEW ZEALAND.

Eighth Annual Report of the Department of Labor of New Zealand, for the year ending March 31, 1899. xxiv, 106 pp.

This report consists of an introduction, 24 pages; statistics concern- ing persons assisted by the department of labor, 8 pages; accidents, legal decisions, and disputes under the industrial conciliation and arbi- tration act, 1894, 35 pages; number and wages of employees in fac- tories and railway workshops, 61 pages; permits granted for child labor and reports on accommodations provided for sheep shearers, 2 pages.

INTRODUCTION.—This part of the report consists of a review of labor conditions in New Zealand, remarks upon the tabulated returns concerning factory wages and upon matters of local interest, such as the workings of various labor laws, proposed legislation, industrial conciliation and arbitration, the State farm, and the text of reports of local factory inspectors and agents of the department.

The upward tendency of trade and business noted in recent annual reports continued during this fiscal year. There was a general expan- sion of industry, due to improved machinery, increased transportation facilities, extended markets, and a good harvest.

PERSONS ASSISTED.—Detailed tables are given, showing by occupa- tions and localities the number of persons who obtained employment through the agency of the department. The statistics are arranged according to conjugal condition and nature of employment given, whether public or private, and show the number of dependents, months unemployed, and causes of failure to obtain work.

During the fiscal year ending March 31, 1899, the department assisted in this way 2,115 persons who had 4,759 others depending upon them for support. Of these dependents 1,178 were wives, 3,300 were children, and 281 were parents and others. Thirty-two wives and 37 children were sent to workmen. Of the persons assisted, 638 were sent to private employment, and 1,477 to Government works. The cause given for failure to obtain employment was slackness of trade in 2,097 cases and sickness in 18 cases.

The following table shows the number of persons assisted, and the number of their dependents for each year, since the founding of the labor department:

PERSONS ASSISTED BY THE DEPARTMENT OF LABOR, 1892 to 1899.

Year ending March 31—	Men for whom work was secured.	Dependents.
1892 (a)	2,593	4,729
1893	3,874	7,802
1894	3,371	8,002
1895	3,030	8,883
1896	2,871	8,424
1897	1,718	4,719
1898	2,035	4,928
1899	2,115	4,759
Total.....	21,607	52,246

a June, 1891, to March 31, 1892.

In addition to the above, 426 women and girls secured employment through the women's branch of the department. Of these, 324 were domestic servants.

EMPLOYEES IN FACTORIES.—This presentation covers all employees who came under the provisions of the factories act during the fiscal year ending March 31, 1899. The tables show, by localities and industries, the number and average weekly wages of all factory employees, arranged according to sex and age groups, those over 20 years of age being taken collectively. There were during the fiscal year 45,305 persons employed in 6,286 factories. This was an increase of 5,633 employees and of 685 factories over the preceding year.

EMPLOYEES IN RAILWAY WORKSHOPS.—The data presented for employees in railway workshops show the number of men and apprentices employed and their average wages, by localities and occupations. During the fiscal year 1,248 men and 152 apprentices were employed in railway workshops in New Zealand.

ONTARIO.

Sixteenth Annual Report of the Bureau of Industries for the Province of Ontario, 1897. vii, 136 pp. (Published by the Ontario Department of Agriculture.)

This report relates mainly to agriculture. It comprises the following subjects: Weather and crops, 68 pages; live stock, the dairy, and the apiary, 26 pages; values, rents, and farm wages, 38 pages; chattel mortgages, 3 pages.

VALUES, RENTS, AND FARM WAGES.—The total value of farm property in 1897 is given at \$905,093,613, of which \$554,054,552 represents land, \$206,090,159 buildings, \$51,299,098 implements, and \$93,649,804 live stock. There has been a steady decline in the value

of farm property since 1892. The decline in 1897 was much less than in any other year of the period.

There was but little change in the price of farm labor in 1897 as compared with the preceding year. Farm hands with board received in 1897 an average of \$144 per year, the same as in 1896. Farm hands without board received an average of \$236 in 1897, or \$7 less than the preceding year. The average monthly rate of wages during the working season was \$14.29, with board, in 1897, or \$0.28 less than in 1896. The average monthly rate without board was \$24.47 in 1897, or \$0.36 more than in 1896. The monthly wages, with board, received by domestic servants fell from \$6.11 in 1896 to \$5.97 in 1897.

CHATTEL MORTGAGES.—During the year ending December 31, 1897, there were on record 21,526 chattel mortgages, representing \$13,382,195. This shows a slight decrease, both in number and in amount, when compared with the preceding year. Of the chattel mortgages in 1897, 12,103, representing \$3,933,600, were registered against farmers.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, will be continued in successive issues, dealing with the decisions as they occur. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks, and when long by being printed solid. In order to save space, immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

BY-LAWS OF AN ASSOCIATION WHICH ARE IN RESTRAINT OF TRADE NULL AND VOID—EFFECT OF ANTITRUST ACT—*Bailey et al. v. Association of Master Plumbers of City of Memphis*, 52 *Southwestern Reporter*, page 853.—This was an action heard in the circuit court of Shelby County, Tenn., and brought by the above-named association against J. A. Bailey & Co. to recover an alleged debt. A judgment in favor of said association was rendered, and the defendants, Bailey & Co., carried the case upon writ of error before the supreme court of the State, which, after a hearing, rendered its decision August 15, 1899, and reversed the judgment of the lower court.

In delivering the opinion of the supreme court, which contained a clear statement of the facts in the case, Judge Caldwell used the following language:

The Association of Master Plumbers of the City of Memphis sued J. A. Bailey & Co. before a justice of the peace to collect an alleged debt of \$444. On appeal to the circuit court the presiding judge tried the case without a jury, and pronounced judgment in favor of the plaintiff for the amount claimed. The defendants have appealed in error to this court, and, as they insisted below, here insist that the demand is illegal, and that they owe the plaintiff nothing. The plaintiff is a corporation chartered as a nonprofit association, under section 2, c. 142, acts of 1875 (Shannon's Code, sec. 2514 et seq.), and organized by a majority of the plumbers in the city of Memphis, Tenn. Numerous by-laws were adopted for the government of the association, and some of them were amended from time to time to meet the changing views of the members. One of the amended by-laws, as recited in the president's testimony, was as follows: "Each member of the association was required thereafter to report in open meeting each week what work he had done during the week, and, if it developed that such work was done in competition with any other member (such fact to be made known by the statement of such other member at the meeting at which the work was called out), the member having done the work was to pay into the treasury of the association a fixed sum, according to a schedule agreed upon and made a part of the by-law, namely, for each bath tub put in, \$7.50 was to be paid to the association; for each water-

closet, a fixed sum," etc. In accordance with the plain terms of this by-law, the defendants, who were members of the association from the beginning, made weekly reports for some time, and were by the secretary charged on the books of the association with the sums fixed in the schedule for such parts of the work reported as were shown to have been done in competition with other members. The charges so made aggregated \$441, and constituted the sole basis of this action and of the judgment below.

Since the plaintiff's demand rests upon the by-law set out above, and nothing else, the first logical step to be taken in the consideration of the case is to determine the legal effect of that by-law. Is it valid or invalid? Its controlling feature, as is readily observed, is the unconditional and inexorable requirement that all members of the association who engage in plumbing work in competition with other members shall pay into the treasury of the association, upon that consideration alone, fixed sums of money for particular kinds of work, which sums in each instance must amount to a large per centum of the price charged. In other words, and more briefly stated, all members doing such competitive work are imperatively required to pay a large tax or tariff thereon to the association. That requirement, however phrased, tends unmistakably and inevitably to one or both of two unlawful results: (1) The destruction of free and natural competition among members; (2) the arbitrary and unreasonable increase of prices to customers. The tax or tariff so imposed by the association is in the nature of a penalty visited on members who shall successfully bid against other members on work appertaining to the plumbing business; and, in the nature of things, the member, who is always conscious of the fact that he must bear the burden and pay that tribute if he gets the job, may be expected to refrain from bidding altogether, or to indemnify himself by adding a corresponding sum to the price he would otherwise charge the customer for the same work. Though the by-law does not in terms require the member doing competitive work to increase the price he would otherwise exact of the customer, such increase is its natural tendency and effect, as would readily be supposed from its scope, and as is conclusively demonstrated by this record. The president of the association testified that "usually he had added this amount [that fixed by the schedule of the by-law in question] to the price of such work as he thought he was bidding on in competition with others, but that, so far as the rule of the association was concerned, he was at liberty to fix his own price, and to do the work at a loss, if he saw fit." No witness testified to a different course of business, or mentioned a single instance in which the customer was not required to bear the burden of this tax or tariff by paying a price enhanced to that extent. Though influential in both particulars, this by-law is not shown to have reduced competition among the members of the association so much as it enhanced prices. In the latter respect it exerted a very large and most hurtful influence upon the public. The arbitrary and unreasonable enhancement in prices was rendered easy, and consequently the more widely harmful and oppressive, by the fact that most of the plumbers in the city of Memphis were members of the association, and that an imperative ordinance of the municipality, as well as the dictates of health and comfort, required all inhabitants to procure and use many of the things for whose sale and construction the association exacted the tax

or tariff from its members. The provision is obviously an unreasonable restraint upon trade, and, being so, it is contrary to public policy and void under the common law. It injuriously affects matters of prime importance and legal necessity to the community at large, by the impairment of competition on the one hand, and the enhancement of prices on the other hand, and consequently no supposed obligation resting upon it is capable of enforcement in a court of justice.

The association now before the court has other by-laws, which further illustrate and demonstrate its hurtful and unlawful tendency. Two of them are as follows: "Art. 9. No member of this association shall purchase any supplies from any supply house, manufacturer, or dealer in plumbing materials who does not comply with the rules and requirements of this association. Art. 10. No member shall buy material of any kind from a jobber who buys material from a manufacturer who sells plumbing or gas fitting material to any one in our city who is not a member of our association." Manifestly these provisions were intended to restrain all members of the association in their purchases of "supplies" and "material," and all dealers who sell to them, in their sales; and at the same time to embarrass nonmembers, and "boycott" dealers who sell to them. The restraint is fourfold. It operates upon members and upon dealers who sell to them, upon nonmembers and upon dealers who sell to them; and in each of the four particulars it interrupts that freedom in trade to which all of them were otherwise entitled, and which the public is interested to have them enjoy. All members and all nonmembers were of right entitled to buy from any and all dealers, at their election, yet the members are restricted to dealers who sell to none but members, and nonmembers are restricted to dealers who sell to none but nonmembers; and, likewise, all dealers were of right entitled to sell to all persons who desired to purchase, yet those of them who sell to members are forbidden to sell to others, and those who sell to others are thereby deprived of sales to members. Thus and to this extent the public loses the benefit of fair and free competition, which it is always entitled to have. These by-laws virtually divided the trade in plumbing materials and supplies for Memphis into two main parts, in the nature of combinations, one of them being represented by members of the association and dealers who sell to them alone, and the other being represented by nonmembers and dealers who sell to them alone; and thereby the two classes are intended to be arrayed against each other, not in fair and free competition, but with a view to the ultimate demolition of the latter class and the entire control of the trade by the former class. The underlying thought is the destruction of all competition with nonmembers, by driving them out of the business, and the acquisition of the whole trade for members, whose competition among themselves and whose prices to customers are subject to the illegal rule already considered.

The fact that every plumber in the city of Memphis had the legal right originally to purchase supplies and materials from any dealer or dealers he might choose did not justify the association in the passage of by-laws requiring its members to buy from that class of dealers it saw fit to name. The two things are not the same, but antagonistic. The former is freedom; the latter, restraint. Only members of the association are technical parties to these by-laws, and as such subject to the punishment of expulsion for their violation. Nevertheless all persons engaged in plumbing work in the city of Memphis, and all

dealers in plumbing material and supplies, wherever located, who sell to them, are necessarily affected by their natural operation, to the extent and in the manner already indicated; and all of those dealers who agree to sell to members of the association only, by that agreement and its observance become parties to the scheme, and assume the same attitude before the law as if they had been technical parties to the by-laws, and agreed to observe them, in the first instance. The proof in the record discloses the fact that several dealers out of the State ratified the by-laws, as far as relating to themselves, and repeatedly refused to sell material and supplies to nonmembers, for no other reason than that doing so would be a violation of the by-laws, and subject them, as dealers, to a "boycott" by the association. This action of important dealers was the consummation of a vital part of the complex scheme; and the arrangement so accomplished, as the natural and intended result of these by-laws, is an illegal restraint on trade, a combination and trust, in limited form, tending to stifle competition and to create a monopoly in a particular line and community. By-laws with such capabilities, import, and design are clearly obnoxious to the common law, as well as violative of our statutes (Shannon's Code, secs. 3185, 6622), which forbid and declare unlawful, null, and void "all trusts, pools, contracts, arrangements, or combinations," or corners, or other devices that are intended to destroy or prevent, or that have a tendency to destroy or prevent, "full and free competition in the production, manufacture or sale of any article of legitimate traffic," or that "are designed or tend to fix, regulate, limit," reduce, or increase the price of such article, or to create a monopoly or a corner therein, or that may in any manner "injuriously affect the legitimate trade and commerce of the country." Whether these by-laws be regarded as a contract, an arrangement, a combination, or a trust, one or all—and we think they partake of the nature of all of them—there can be no reasonable doubt that they were intended and are well calculated to prevent full and free competition in the purchase and sale of articles of legitimate traffic, to influence the prices thereof, and thereby to injuriously affect trade and commerce within the territory contemplated.

CONSTITUTIONALITY OF STATUTE—CONFERRING OF INCONSISTENT LEGISLATIVE AND JUDICIAL POWERS UPON THE SAME BODY—*The Western Union Telegraph Co. v. A. J. Myatt et al.*—By chapter 28, acts of the special session of the legislature of Kansas, 1898-99, a body was created to be known as the "court of visitation" and to have certain powers concerning the regulation of railroads in the State.

Section 8 of said chapter defines the power and jurisdiction of the court throughout the State—to try and determine all questions as to what are reasonable freight rates, switching and demurrage charges, and all other charges connected with the transportation of property between points in the State, etc. Section 28 provides for the rendering of such a decree at the end of each hearing as the pleadings and proof warrant, and section 32 provides that if any company fails to comply with any order or decree for thirty days after promulga-

tion the court may order sequestration of the whole or any part of the company's property, appoint a receiver to take charge and possession of the property, and to operate the same and carry the order and decree into effect, etc. Section 42 provides as follows:

SECTION 42. Whenever it shall be made to appear to said court by affidavit that a strike by the employees, or part of them, of any railroad company organized under the laws of this State or doing business therein is obstructing commerce or the traffic on such railroad and inconveniencing the public, or the people of any municipality, or endangers or threatens the public tranquillity, said court shall issue a citation requiring said corporation to appear before it, at a day and hour named, and make answer, verified by the positive oath of an officer or agent of said corporation residing in this State and then present therein, concerning the said strike, its extent, the cause or causes thereof, what conduct, if any, of said corporation or its officers led to such strike, and the precise point or points of dispute between said corporation and its striking employees. If said answer be not made at the time fixed, or be evasive, the court shall make a final decree as upon hearing and enforce the same as such. If said answer be properly made, the matter shall be without further delay summarily heard upon evidence; and if the corporation be found free from fault in the premises and the strike unreasonable, the court shall so find, and the said proceedings shall be dismissed; and thereupon, and upon public notice as ordered by the court given of such decision, it shall be unlawful for said strikers or any of them to interfere in any manner whatever, by word or deed, with any other employees said corporation may employ and set to work. But if the court shall find that said corporation has failed in its duty toward its employees, or any of them, or has been unreasonable, tyrannical, oppressive, or unjust, and the strike resulted therefrom, the court shall so find specifically, and shall enter a decree commanding such corporation to proceed forthwith to perform its usual functions for the public convenience, and to the usual extent and with the usual facilities, as before said strike occurred; and if said decree shall not be implicitly obeyed, in full and in good faith, the court may take charge of said corporation's property and operate the same through a receiver or receivers appointed by said court until the court shall be satisfied that said corporation is prepared to fully resume its functions; all costs to be paid by said corporation. If, in answer to said original process ordering it to show cause as aforesaid, said corporation shall show to the court's satisfaction that said striking employees have resumed work and said strike has ended, the proceeding shall be dismissed. If in such answer it shall show to the court's satisfaction that said striking employees have resumed work under an agreement to remain in said corporation's service pending the hearing of the proceedings, and that the corporation will abide by the terms of said agreement, then, and only in such case, the hearing of said matter in controversy concerning the cause or causes of said strike may be postponed on request a reasonable time, or from time to time, while said employees so remain at work; and upon settlement of said strike said proceedings may be at any time dismissed; but if said employees again quit work, said matter shall be brought to an immediate hearing and decree, notwithstanding a pending postponement.

Chapter 38 of the acts of 1898-99 provides that the said court of visitation shall have the same power, etc., over all questions concerning the regulation of the telegraph service in the State of Kansas as is conferred upon said court in reference to railroads, and prescribes a schedule of maximum rates.

Certain proceedings against the Western Union Telegraph Company were brought by A. J. Myatt, State solicitor, in the court of visitation, organized under the provisions of chapter 28, above, for the purpose of enforcing the provisions of chapter 38, above. The telegraph company thereupon filed its complaint in the United States circuit court alleging, among other things, that for a long time it had been the owner and engaged in the operation of many miles of telegraph lines in the States and Territories of the United States; that the maximum telegraph rates prescribed by said chapter 38 are materially less than the actual cost of the performance of the service, etc. Said complaint alleged that the enforcement of the above enactments of the legislature would operate to deprive it of its property without due process of law, and asked that further proceedings to enforce the maximum rates complained of be enjoined. The decision of the circuit court was recently rendered and a temporary injunction was issued.

While the points directly involved in this case have no immediate bearing on the labor question, yet as section 42 of chapter 28, quoted above, provides for the interference of the court of visitation in cases of strikes on railroads, and the constitutionality of the entire chapter is involved in the decision, a brief showing of its points will be given. A copy of the opinion of the circuit court, delivered by Judge Hook, has been obtained from the clerk of the court, and the following is quoted therefrom:

In the enactment of the law creating the court of visitation of the State of Kansas and defining its powers and jurisdiction and of the subsequent law extending such powers and jurisdiction to telegraph companies, the legislature attempted to confer upon a single board or body important and substantial legislative, administrative and judicial powers to be exercised in the same proceeding and as to the same subject matter. It attempted to confer full power to regulate the operation of railroad and telegraph companies and to prescribe schedules of rates and charges, which power is legislative or administrative in its character. It also attempted to confer upon the court of visitation the power to pass judicially upon its regulations and the reasonableness of the rates fixed by it, to embody its determinations in decrees which it was authorized to enforce by the appointment of receivers and the sequestration of the property of the companies.

The law creating the court of visitation is in contravention of the constitution of Kansas which inhibits the conferring of inconsistent legislative and judicial powers upon the same body, to be exercised regarding the same subject matter.

An active, potential agency of the legislative power of a State can not be empowered to sit in judgment upon the validity of its own

enactments and to enforce its decrees with reference thereto by the exercise of the extraordinary powers of a court of chancery.

The act establishing the court of visitation is either wholly void or void to the extent that it attempts to confer judicial powers upon that body. It is unnecessary to determine in this case whether the court of visitation, though possessing no judicial functions, may still have and exercise the legislative and administrative powers specified in the acts of the legislature.

CONSTITUTIONALITY OF STATUTE—MECHANICS' LIEN LAW—STREET RAILROADS—*Montgomery et al. v. Allen et al.*, 53 *Southwestern Reporter*, page 813.—Action was brought by H. P. Montgomery and others against Kate Allen and others to enforce certain mechanics' liens claimed under sections 1 and 30 of chapter 151, acts of Kentucky of 1891–1893, now being sections 2463 and 2492 of the Kentucky Statutes of 1894. In the circuit court of Scott County, Ky., a judgment was rendered in favor of the defendants, denying to the plaintiffs priority over certain mortgage bondholders. The plaintiffs appealed the case to the court of appeals of the State, which rendered its decision November 23, 1899, and reversed the decision of the lower court. The principal questions decided were the constitutionality of the mechanics' lien act, above referred to, and the fact of its applicability in the case of a street railroad company, such a company being one of the defendants in the case.

Judge Hobson delivered the opinion of the court of appeals, and from the same the following is quoted:

The act in force when the contracts were made and the work done [section 1 of chapter 151, acts of 1891–1893] gave the mechanics a lien on the land and the improvements superior to any mortgage or incumbrance created subsequent to the beginning of the labor or the furnishing of the materials. This lien related back and took effect from the time the work was begun (acts 1891–1893, p. 505 [section 1 of chapter 151, acts of 1891–1893]). We do not see that this statute is liable to any constitutional objection, as the parties must all be presumed to have contracted with reference to their rights as fixed by it. It does not attempt to displace prior liens, but only to make subsequent liens acquired after the work is begun subordinate to the mechanics' lien.

It is also insisted that no lien exists under the statute on a street railway. The statute is as follows: "All persons who perform or furnish labor or teams for the construction or improvement of any canal, railroad, turnpike, or other public improvement in this Commonwealth by contract express or implied, with the owner or owners thereof, or by subcontract thereunder, shall have a lien thereon and upon all the property and franchises of the owner or owners thereof for the full contract price of such labor, material and teams so furnished or performed, which said lien shall be prior and superior to all other liens theretofore or thereafter created thereon." (See sess. acts 1891–1893, p. 514, § 30 [section 30 of chapter 151, acts of 1891–1893]).

If there could be any doubt that the term "railroad" in the section above quoted would include an electric street railway, under the liberal rule of construction in force in this State, there can be no doubt that the terms "railroad, or other public improvement" certainly cover it. A street railroad is, at least, a public improvement. By this general term the legislature intended to embrace everything of this character. A street railroad is as fully within the purview and spirit of the act as a railroad or turnpike would be. Judgment reversed.

EMPLOYERS' LIABILITY—ASSUMPTION OF RISK—EFFECT OF STATUTE—*Gillin v. Patten and Sherman Railroad Co.*, 44 *Atlantic Reporter*, page 361.—This was an action on the case brought in the supreme judicial court of Maine against the above-named railroad company to recover damages for personal injuries sustained by the plaintiff while employed as a brakeman upon the track of the defendant company at Sherman junction. The plaintiff alleged that in attempting to take certain cars situated at said junction upon the line of a connecting railroad and while uncoupling cars, having pulled the pin, the train still moving, he tried to step out from between the cars, and in so doing caught his left foot in the flare of the main rail and a guard rail, which was not filled or blocked, and received an injury to the foot which necessitated the amputation of a large portion of it. The jury returned a verdict for the plaintiff, and the defendant filed a general motion for a new trial, which was granted in a decision rendered June 2, 1899.

The opinion of the court was delivered by Judge Emery, and the syllabus of the same, which is marked "official," is in the following words:

1. St. 1889, c. 216, requiring each railroad company to fill or block the frogs and guard rails on its track before January 1, 1890, does not require a railroad company, organized and constructing its railroad after that date, to fill or block its frogs and guard rails before allowing trains to be operated over its tracks. Such company is entitled to a reasonable time for compliance with that statute.

2. A brakeman, who has worked as sectionman and brakeman for two years on a railroad where the frogs and guard rails were not filled or blocked, must be presumed to appreciate the danger of getting his foot caught in such frogs and guard rails while stepping about and over them.

3. Such a brakeman, having occasion to work as brakeman on the trains of his employer while passing over another railroad, just constructed (since January 1, 1890), can not rightfully assume that the frogs and guard rails of the new railroad are filled or blocked, and hence dismiss all thought of them from his mind.

4. If such brakeman, under such circumstances, continues to work without requiring the frogs and guard rails to be filled or blocked, he must be held to have waived the right, and to have assumed the risk of injury from stepping into them.

5. For such a brakeman, under such circumstances, to move about

over frogs and switches while coupling and uncoupling cars, even in moving trains, without taking any thought of the frogs and guard rails, or as to where he may be stepping, is negligence on his part contributing to the catching his foot in them.

EMPLOYERS' LIABILITY—ASSUMPTION OF RISK—EFFECT OF STATUTE—*Narramore v. Cleveland, Cincinnati, Chicago and St. Louis Ry. Co.*, 96 *Federal Reporter*, page 298.—This action was brought in the United States circuit court for the western division of the southern district of Ohio to recover damages for personal injuries sustained by the plaintiff, one Narramore, while in the employ of the defendant company as a switchman in its railroad yards at Cincinnati, Ohio. While the plaintiff was attempting to couple two freight cars his foot was caught in an unblocked guard rail, and in his effort to extricate it his right hand was crushed between the drawheads of the cars and injured so badly as to require amputation. Plaintiff had been in the defendant's employ for 7 months. He had had 9 years' experience as a railroad man. There were a great many guard rails and switches in the yard where he worked. With the exception of a few, where experimental blocks were used, the company did not use blocks in either its guard rails or switches. The plaintiff relied on the statute of Ohio passed March 23, 1888, being sections 9822 and 9823 of the Revised Statutes, seventh edition. The sections read as follows:

SECTION 9822. Every railroad corporation operating a railroad or part of a railroad in this State, shall, before the first day of October, in the year eighteen hundred and eighty-eight, adjust, fill or block the frogs, switches and guard rails on its track, with the exception of guard rails on bridges, so as to prevent the feet of its employees from being caught therein. The work shall be done to the satisfaction of the railroad commissioner.

SEC. 9823. Any railroad corporation failing to comply with the provisions of this act shall be punished by a fine of not less than one hundred dollars nor more than one thousand dollars.

The defendant company was operating the railroad at the time of the passage of the act and had been continuously operating it since. Upon the above showing, at the close of the evidence, the court directed the jury to return a verdict for the defendant company on the ground that as the failure of the company to block its switches was obvious the plaintiff must be held, notwithstanding the statute, to have assumed the risk of injury therefrom; and such a verdict having been rendered, judgment for the company was entered thereon. The plaintiff then appealed the case to the United States circuit court of appeals for the sixth circuit, which rendered its decision July 5, 1899, and reversed the judgment of the lower court.

The opinion of the court was delivered by Judge Taft, who, in the course of the same, used the following language:

In the absence of the statute, and upon common-law principles, we have no doubt that in this case the plaintiff would be held to have assumed the risk of the absence of blocks in the guard rails and switches of the defendant. His denial of knowledge of the fact that the particular guard rail causing the injury was unblocked is entirely immaterial. In such a case the authorities leave no doubt that the servant assumes the risk of the absence of the blocks, and the employer can not be charged with actionable negligence towards him.

The sole question in the case is whether the statute requiring defendant railway, on penalty of a fine, to block its guard rails and frogs, changes the rule of liability of the defendant, and relieves the plaintiff from the effect of the assumption of risk which would otherwise be implied against him. We have already had occasion to consider in a more or less direct way the effect of the statute. In these cases we held that the failure on the part of a railway company to comply with the statute was negligence per se. A further consideration of the statute confirms our view. The intention of the legislature of Ohio was to protect the employees of railroads from injury from a very frequent source of danger by compelling the railway companies to adopt a well-known safety device. It was passed in pursuance of the police power of the State, and it expressly provided, as one mode of enforcing it, for a criminal prosecution of the delinquent companies. The expression of one mode of enforcing it did not exclude the operation of another, and in many respects more efficacious, means of compelling compliance with its terms, to wit, the right of civil action against a delinquent railway company by one of the class sought to be protected by the statute for injury caused by a failure to comply with its requirements. Unless it is to be inferred from the whole purview of the act that it was the legislative intention that the only remedy for breach of the statutory duty imposed should be the proceeding by fine, it follows that upon proof of a breach of that duty by the railway company, and injury thereby occasioned to the employee, a cause of action is established. In this case there can be no doubt that the act was passed to secure protection and a newly defined right to the employee. To confine the remedy to a criminal proceeding in which the fine to be imposed on conviction was not even payable to the injured employee or to one complaining, would make the law not much more than a dead letter.

Does a knowledge on the part of the employee that the company is violating the statute, and his continuance in the service thereafter without complaint, constitute such an assumption of the risk as to prevent recovery? Assumption of risk is a term of the contract of employment, express or implied from the circumstances of the employment, by which the servant agrees that dangers of injury obviously incident to the discharge of the servant's duty shall be at the servant's risk. In such cases the acquiescence of the servant in the conduct of the master does not defeat a right of action on the ground that the servant causes or contributes to cause the injury to himself; but the correct statement is that no right of action arises in favor of the servant at all, for, under the terms of the employment, the master violates no legal duty to the servant in failing to protect him from dangers the

risk of which he agreed expressly or impliedly to assume. The master is not, therefore, guilty of actionable negligence towards the servant. This is the most reasonable explanation of the doctrine of assumption of risk.

If, then, the doctrine of the assumption of risk rests really upon contract, the only question remaining is whether the courts will enforce or recognize as against a servant an agreement express or implied on his part to waive the performance of a statutory duty of the master imposed for the protection of the servant, and in the interest of the public, and enforceable by criminal prosecution. We do not think they will. To do so would be to nullify the object of the statute. The only ground for passing such a statute is found in the inequality of terms upon which the railway company and its servants deal in regard to the dangers of their employment. The manifest legislative purpose was to protect the servant by positive law, because he had not previously shown himself capable of protecting himself by contract; and it would entirely defeat this purpose thus to permit the servant "to contract the master out" of the statute.

Judgment reversed, at costs of the defendant, with directions to order a new trial.

EMPLOYERS' LIABILITY—FELLOW-SERVANTS—DUTY OF MASTER—
Mann v. O'Sullivan, 58 *Pacific Reporter*, page 375.—This action, brought by John Mann against Mary Ann O'Sullivan, to recover damages for injuries incurred by him while in her employ, was heard in the superior court for the city and county of San Francisco, Cal., and a judgment was rendered therein for the defendant. It appeared from the evidence that Mann was employed to repair an elevator in a building owned by the defendant, and that while so engaged, and owing to the negligence of one Emmet Carney, the operator of the elevator, the elevator moved and struck the screening where the plaintiff was at work and injured him. Upon the rendition of the judgment by the court as above mentioned the plaintiff appealed the case to the supreme court of the State, which rendered its decision September 13, 1899, and affirmed the judgment of the court below. Section 1970 of the Civil Code of California has some bearing upon this decision and reads as follows:

SECTION 1970. An employer is not bound to indemnify his employee for losses suffered by the latter in consequence of the ordinary risks of the business in which he is employed, nor in consequence of the negligence of another person employed by the same employer in the same general business, unless he has neglected to use ordinary care in the selection of the culpable employee.

From the opinion of the supreme court, delivered by Judge Garoute, the following is quoted:

The important matter presented by this appeal arises from the solution of the question as to whether or not the plaintiff and Carney, the man operating the elevator, were fellow-servants. In other words,

these two men being employed by defendant, were they employed "in the same general business?" (Section 1970, Civil Code.) It is impossible to declare a rule of law by which all cases presenting this interesting question may be weighed and tested. The authorities are widely divergent, and text writers appear to be unable to agree upon a satisfactory rule by which it may be determined who are fellow-servants, or what servants are engaged in a common employment, or, as the statute of this State has it, what servants are employed "in the same general business." Shearman & Redfield, in their work upon Negligence, declare the rule as favorably to the servant as it can be found in any standard work, and that rule is declared in section 236: "Under the generally prevailing rule, fellow-servants are engaged in a common employment when each of them is occupied in service of such a kind that all the others, in the exercise of ordinary sagacity, ought to be able to foresee, when accepting their employment, that his negligence would probably expose them to injury." Testing this case by the foregoing rule, the conclusion is irresistible that plaintiff, who was employed to repair the elevator shaft, and Carney, the man who was employed to operate the elevator, were servants of defendant engaged in a common employment, or, as our statute has it, engaged "in the same general business." It was plain to the plaintiff when he began work in repairing the elevator shaft that the negligence of Carney would expose him to great danger. He recognized the fact that danger was present with him, for he instructed Carney not to raise the elevator without a notification to him, in order that he might first remove to a place of safety. The conclusion arrived at in many cases rests upon the principle that, the danger from the negligence of another employee being fairly apparent, it should be held that all other employees assume the risk incident to that danger; and this principle forms the foundation of the rule which we have quoted from Shearman & Redfield.

It is also declared that it was the duty of the master to warn plaintiff when the elevator was about to start. If there had been an express agreement to that effect made by the master and the servant, the plaintiff, when he was hired to do the work, there might be some force in this contention. But plaintiff went to work without any such agreement, and acted alone upon the confidence he had in a compliance with the request he made to the elevator man, Carney, to give him notice of the starting of the cage. For the foregoing reasons the judgment is affirmed.

EMPLOYERS' LIABILITY—NEGLIGENCE OF MASTER—EFFECT OF STATUTE—*Consolidated Coal Company of St. Louis v. Bokamp*, 54 *North-eastern Reporter*, page 567.—Frank Bokamp, a driver in a coal mine of the above-named company, was injured in an accident due, as he claimed, to the negligence of the company, and brought suit to recover damages therefor. The evidence showed that three or four days before he was hurt he noticed that two crossbeams supporting a part of the roof of the mine were cracked, and sagged down in the middle; that he notified the pit boss of the dangerous condition of the roof and the pit boss promised to have it repaired; that on the day he was injured

he had made several trips with cars, passing under these beams, and had found the ground under them clear and free from coal; that on the trip during which he was injured he was trying to mount his seat on the front car just as his cars were about to start on a down grade, and while about under these crossbeams his foot was caught on some slack and top coal, which had been precipitated from the defective roof since the time he had passed on his last trip, and he was thrown forward and jerked off by the timber which supported one end of the broken crossbeams and he was hurled in front of the first car, which so crushed and mangled him as to paralyze both lower limbs and to render the amputation of one of them necessary. A judgment in favor of the plaintiff was rendered in the circuit court of Illinois, where the case was tried, and was affirmed on the appeal made to the appellate court for the third district. The defendant company then appealed the case to the supreme court of the State, which rendered its decision June 21, 1899, and affirmed the judgment of the lower courts.

The opinion was delivered by Judge Phillips, and among the numerous points considered one of some special interest is referred to in the following words:

Counsel for appellant contends that the statute has formulated a complete code of rules for mine management, and that the common-law rules of negligence are thereby superceded, and that especially is this true so far as the case of the roof is concerned; that the statute [sec. 16, chap. 93, Annotated Statutes of 1896], which requires that the owner, agent, or operator of every coal mine shall keep "a supply of timber constantly on hand of sufficient length and dimensions to be used as props and cap-pieces, and shall deliver the same as required, with the miners' empty car, so that the workmen may at all times be able to properly secure said workings for their own safety," supercedes any other obligation on the part of the mine owner to look after the roof, and to provide a reasonably safe place for the workmen.

It is a well-settled rule of law, and one that this court has announced, that the master owes a duty to the servant to exercise reasonable or ordinary care to provide a safe place for the servant, or a place reasonably safe and fit for the use intended, and to exercise a like degree of care in the furnishing of tools and appliances, and in the selection of collaborators.

The degree of care required on the part of the master varies with the nature of employment, and the means of knowledge of the servant. This does not mean that the master is an insurer, nor does it relieve the servant from due care. If the servant has no knowledge of risks of which the master has knowledge, it is his duty to warn him. If the converse is true, the servant should notify the master, or, if the peril is imminent, cease work. The requirement of the statute above referred to seeks to protect the miners by compelling the mine owner to provide material "so that the workmen may at all times be able to properly secure said workings for their own safety." If the workmen, only, used this timber, propped the roof themselves, and themselves undertook to secure the same against injury, it might well be said they assumed the risk. But here appellee had nothing to do with

the roof. He found it out of repair, and the appellant had notice, through its vice principal, Ramsey [the pit boss], and assumed to repair it. The evidence further shows that the company had timbermen in its employ, whose duty it was to protect the roof. Appellee's duties gave him no time, nor does it appear that he had the means or ability, to make the needed repairs. It were to test the flexibility of the law too far to stretch this statutory enactment as a shield over appellant now. Judgment affirmed.

EXCLUSION OF ALIEN IMMIGRANTS—CONSTRUCTION OF STATUTE—CONCLUSIVENESS OF DECISION OF IMMIGRATION OFFICERS—*In re Ota*, 96 *Federal Reporter*, page 487.—A petition for a writ of habeas corpus to review the action of the Secretary of the Treasury in denying the petitioner, one S. Ota, an alien, the right to enter the United States, was filed in the United States district court for the northern district of California.

The decision of the court denying the petition was rendered September 1, 1899, the opinion, delivered by District Judge De Haven, reading as follows:

This is a proceeding arising upon a writ of habeas corpus issued in behalf of one S. Ota, and the case was submitted to the court for its decision upon the petition for the writ, the return thereto, and certain admissions made by counsel during the argument, from which I find the following facts: That Ota is a native and subject of the Empire of Japan, and for more than eight years has been a resident of the State of California, and is now a merchant, and member of the firm of Ota & Sanada, San Francisco; that said firm deals in Japanese fancy goods, teas, and coffee, and imports, manufactures, and sells all kinds of bamboo furniture; that in March of the present year Ota went to Japan for the purpose of buying goods for his firm, and, after having made purchases to the amount in value of more than \$5,000, he returned to San Francisco on the steamship Hongkong Maru, arriving at that port on or about August 5, 1899, and thereafter, on the 10th day of August, 1899, after a special inquiry by the immigration officials at the port of San Francisco, he was found to be suffering from a loathsome and contagious disease, and was ordered by H. H. North, the commissioner of immigration at that port, to be returned to Japan. This order was, on appeal to the Secretary of the Treasury, affirmed, and Ota is now in the custody of the steamship company operating the Hongkong Maru, for the purpose of being returned to the country whence he came.

It appears very clearly from these facts that Ota is not an alien immigrant, and the commissioner of immigration and the Secretary of the Treasury, if the same facts were before those officers, erred in ordering him to be returned to Japan as such. The act of March 3, 1891 [chap. 551, Acts of 1890-91; vol. 26, U. S. Statutes at Large, p. 1024], under which the order for the deportation of Ota is attempted to be justified, does not apply to aliens domiciled in this country, and who are returning thereto after a temporary absence. But under the act of August 18, 1894 [chap. 301, Acts of 1893-94: vol. 28, U. S. Statutes at

Large, p. 390], the decision of the Secretary of the Treasury to the contrary can not be reversed or set aside by the court in this proceeding. That act provides: "In every case where an alien is excluded from admission into the United States under any law or treaty now existing or hereafter made, the decision of the appropriate immigration or customs officers, if adverse to the admission of such alien, shall be final, unless reversed on appeal to the Secretary of the Treasury."

Under this statute, when the executive officers of the Government, upon a hearing such as is contemplated by the law, have decided that an alien is not entitled to enter the United States, the courts are without jurisdiction to review that determination upon questions either of law or of fact. The finding of these officers that an alien seeking to land is an immigrant is as conclusive upon the court, in a proceeding like this, as their finding in relation to any other fact affecting the right of the alien to land. The writ will be discharged.

LIABILITY OF RAILROAD COMPANIES FOR WAGES OF LABORERS DUE FROM SUBCONTRACTORS—*George v. Washington County Railroad Co.*, 44 *Atlantic Reporter*, page 377.—This action was brought in the supreme judicial court of Maine by John George against the above-named railroad company to recover wages due from certain subcontractors of the railroad. The case came before the full bench on an agreed statement from the supreme judicial court in Washington County and the action was based on section 141 of chapter 51 of the Revised Statutes, which reads as follows:

SECTION 141. Every railroad company, in making contracts for the building of its road, shall require sufficient security from the contractors for the payment of all labor thereafter performed in constructing the road by persons in their employment; and such company is liable to the laborers employed, for labor actually performed on the road, if they, within twenty days after the completion of such labor, in writing, notify its treasurer that they have not been paid by the contractors. But such liability terminates, unless the laborer commences an action against the company, within six months after giving such notice.

The decision of the court was rendered July 22, 1899, and was in favor of the plaintiff. The opinion of the court was delivered by Judge Emery, and the syllabus of the same, marked "official" in the report of the case, reads as follows:

1. The statute (Rev. St. c. 51, sec. 141), authorizing laborers employed by contractors in building a railroad to maintain an action against the railroad company for unpaid wages, includes laborers employed by subcontractors.

2. Though such laborers are to be paid monthly by the contractors employing them, they are not required by the statute to notify the railroad company of the nonpayment of each month's wages within 20 days after the end of the month. It is sufficient if the notice be given within 20 days after the completion of their labor under their employment.

MINES—WEIGHING COAL BEFORE SCREENING—SUFFICIENCY OF INDICTMENT—*State v. Pasco*, 54 *Northeastern Reporter*, page 802.—James Pasco was indicted for violating the provisions of sections 7465 and 7467 of the Annotated Statutes of Indiana of 1894, governing the weighing of coal and giving the miner the benefit of the weight before screening. Said sections read as follows:

SECTION 7465. All coal mined in this State under contract for payment, by the ton or other quantity, shall be weighed before being screened, and the full weight thereof shall be credited to the miner of such coal, and eighty pounds of such coal as mined shall constitute a bushel, and two thousand pounds of coal as mined shall constitute a ton: *Provided*, That nothing in this act shall be so construed as to compel payment for sulphur, rock, slate, blackjack, or other impurities, including dirt, which may be loaded with, or amongst the coal.

SEC. 7467. Any owner, operator, agent, lessee, superintendent, or bank boss who shall violate the provisions of section five [7465, A. S.] and six [7466, A. S.] of this act, shall upon conviction thereof be fined in any sum not less than one hundred dollars (\$100) for each and every day during which such a violation shall continue.

In the circuit court of Greene County, Ind., a motion to quash the indictment was sustained, and the State appealed the case to the supreme court of the State, which rendered a decision October 10, 1899, and sustained the action of the lower court.

Judge Headley delivered the opinion of the supreme court, and in the course of the same used the following language:

Pasco's motion to quash the indictment was sustained, and the State appeals. The gravamen of the offense defined in section 7465 is the failure of the responsible party to credit the diggers, who work for a price per ton or other quantity, with the weight, before screening, of the coal mined by them. Unless the purpose of the weighing is to ascertain the basis for settlement with those who mined the coal, the law is not offended by weighing it after screening, nor is the weighing of it before screening commanded only when it is a necessary means to correctly credit the miners with the full amount mined by them. Once weighed before screening and properly credited to the miners, the law takes no further account of any subsequent weighing. It is, then, the weighing and crediting to the miners the full weight of the coal mined by them that is required by the statute, and, to make a charge sufficient thereunder, it is essential, as in all criminal pleading, that the indictment state the offense by clear and positive averments. The allegation that Pasco failed to weigh the coal before it was screened, and did weigh it after it was screened, without disclosing some intended or executed purpose affecting the rights of the miners, states no offense. For anything that appears in the indictment, the miners might have previously received their proper weight and credit, and the failure to weigh complained of may have no relation to the accounts of those who mined the coal. A defendant to a criminal charge can not be required to plead to such uncertainty.

And there is another infirmity in the indictment equally fatal. It is charged that Pasco was a mining boss. Mining boss is not one of the classes made amenable to the statute. He is not described as being

authorized to exercise the powers of an owner, operator, agent, lessee, superintendent, or bank boss. He must be one or the other, or act as within one or the other, of these classes, or he is not under the ban of the statute. It is not averred that it was his duty to weigh the coal before it was screened, or that he had any authority to weigh it, nor what his duties really were as mining boss. For aught that is alleged, it might have been the duty of his employment to weigh the coal after it was screened and fitted for market. The substantial fact is left to conjecture, and conjecture can not serve as a basis for an indictment. The motion to quash the indictment was properly sustained. Judgment affirmed.

DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY—ASSUMPTION OF RISK BY EMPLOYEE WHILE TEMPORARILY EMPLOYED BEYOND THE SCOPE AND TERMS OF HIS EMPLOYMENT—*Norfolk Beet-Sugar Company v. Hight*, 80 *Northwestern Reporter*, page 276.—Action was brought in the district court of Madison County, Nebr., by Thomas G. Hight to recover damages from the above-named company for personal injuries sustained while in its employ. The evidence showed that Hight was engaged by the company's foreman for a particular purpose, viz, to sweep and keep clean the floor of the "filter-press room," and for that purpose only; that in said room there was a rapidly moving belt; that the foreman ordered him to take a gunny sack and wipe from said belt some water which had accumulated thereon; that the plaintiff had had no experience in the use and operation of such machinery, and was ignorant of the peril involved in yielding obedience to the foreman's direction; that he proceeded, in the manner indicated by the foreman, to wipe the water from the belt, and while so doing his hand, coming in contact with the belt, was drawn over the wheel on which the belt was running and was crushed and mangled. Upon this evidence a judgment was rendered for the plaintiff, and the defendant company carried the case before the supreme court of the State upon a writ of error. Said court rendered its decision October 5, 1899, and affirmed the judgment of the lower court.

The opinion was delivered by Judge Sullivan, and from the syllabus of the same, which was prepared by the court, the following is quoted:

5. A servant, while temporarily employed in a more hazardous service than that for which he has been engaged, assumes only such risks, in connection with the work, as are equally open and apparent to himself and his employer.

6. If a servant is called by his master to perform work beyond the scope and terms of his employment, and there are hazards incident to the extra service which are or ought to be known to the master, and which the servant, on account of ignorance or lack of experience, does not understand or appreciate, it is the duty of the master to point them out—to indicate the peril and the means of avoiding it.

7. But if the danger is in fact known to the servant, or if the accident could be avoided by the exercise of ordinary care on his part, the doctrine of contributory negligence forbids a recovery.

EMPLOYERS' LIABILITY—DUTY OF THE MASTER—FELLOW-SERVANTS—NEGLIGENCE—*Pool v. Southern Pacific Co.*, 58 *Pacific Reporter*, page 326.—In the district court of Weber County, Utah, a judgment was rendered in favor of the plaintiff in a suit brought by Malola Pool, administratrix of Joseph Pool, against the above-named company to recover damages for the death of said Joseph Pool, caused, as alleged, by the negligence of the defendant company and its servants while the deceased, as an employee under the direction of the defendant, was engaged in repairing a car. The defendant company appealed the case to the supreme court of the State, which rendered its decision July 3, 1899, and affirmed the judgment of the lower court.

The opinion of the supreme court was delivered by Judge Baskin, and the syllabus of the same, which was prepared by the court, sufficiently shows the facts and decision in the case, and reads in part as follows:

2. Under the rule that the contract of employment imposes upon the master the implied obligation not to expose the servant to dangers which the master, by the exercise of reasonable care, skill, and prudence, could avert, evidence which shows that deceased, a car repairer, was directed to repair a car standing on a track other than a repair track, that he went under the car for the purpose of making repairs as directed, that no danger flag was placed on the car being repaired, and that while the deceased was so employed an engine and caboose, under the direction of K., the foreman of the switchmen in the train department, who had actual knowledge of deceased's position under the car, were backed against the car, resulting in the injury and death of the deceased, clearly shows that defendant did not properly discharge the duties which he owed to the deceased under the contract of employment, and was guilty of gross negligence.

3. Among the implied duties imposed by the contract of employment upon the master are that he shall provide reasonable and suitable means and appliances to enable the servant to do his work as safely as the hazard incident to the employment will permit, and that he will provide a suitable and reasonably safe place for doing the work to be performed by the servant.

4. The master can not escape liability for injuries inflicted upon his servant for a negligent discharge of these duties by intrusting their performance to another. These duties are personal duties of the master, which can in no way be delegated so as to relieve him from responsibility. A failure to perform these duties, or any negligence in their performance is the negligence of the master, for which he is liable. Such negligence is not a hazard necessarily attendant upon the occupation of the servant, nor is it one which he, in legal contemplation, is presumed to risk in the service of the master.

5. When the nature of the business is such as to require it, the law

imposes upon the master the duty of making and promulgating suitable rules to promote the safety of his employees.

6. When the nature of the employment of car repairer is so hazardous as the evidence herein disclosed, the duty is imposed upon the master of making and promulgating a rule requiring the placing of danger flags upon cars when repairers are under them, and forbidding any coupling to be done by a locomotive while they are so engaged.

7. A laborer in the car shops of a railroad corporation and the foreman of the switchmen in the train department are not fellow-servants.

8. Even if the injury complained of was directly caused by the act of a fellow-servant, if the chances of its occurrence would have been greatly less if the defendant had faithfully performed the duties it owed deceased, and its negligence in this regard contributed to the injury, the defendant is liable.

9. It is only when the negligence of the plaintiff clearly appears from the evidence that a trial court is justified in withdrawing the question of contributory negligence from the jury; and, where the place where the deceased was ordered to work was not necessarily or inherently dangerous, he had a right to presume that he would not be exposed to unnecessary danger, and that defendant had used proper care to render the place where he was to work reasonably safe, and the fact that he, in obedience to the order of the foreman in charge of repairers, went to work under the car, beneath which he was fatally injured, does not establish contributory negligence.

EMPLOYERS' LIABILITY—NEGLIGENCE—FELLOW-SERVANTS—*Burke v. National India Rubber Co.*, 44 *Atlantic Reporter*, page 307.—In an action brought in the common pleas division of the supreme court of Rhode Island by John F. Burke against the above-named company, to recover damages for injuries incurred by him while in its employ, a judgment in his favor was rendered. The defendant company petitioned the court for a new trial, and after a hearing by the full bench a decision was rendered December 20, 1897, granting said petition.

The opinion of the court, containing the facts in the case, reads as follows:

The testimony shows that in obedience to the order of the defendant's foreman, Finch, communicated to them through Walsh, who tended the calender machine, the two boys, Mahar and Farley, proceeded to clean out the pit before that time occupied by the gearing of a calender machine which had been removed from that location; that in doing this Mahar and Farley threw the grease, dirt, scraps of gum, and other material which had accumulated in the pit, onto the brick floor in front of the rolling mill, by which the plaintiff was injured; that they subsequently removed this from the floor, except some of the grease which adhered to the brick and rendered it slippery; that this work was done between 3 and 4 o'clock in the afternoon; that the accident to the plaintiff happened on the same afternoon, shortly before 6 o'clock, and was occasioned, as the jury found, by the plaintiff's slipping on the greasy floor and falling against the rolls of the mill.

We think that the leaving of the grease on the floor by Mahar and Farley must be regarded as the carelessness of fellow-servants of the plaintiff, and consequently that the common pleas division erred in refusing the defendant's fifth request for instructions. The short interval of time between the leaving of the grease on the floor and the accident to the plaintiff was insufficient to charge the defendant with notice of the condition of the floor, and thereby render it liable for a breach of its duty to the plaintiff to furnish him safe premises on which to work. New trial granted and case remitted to the common pleas division.

A rehearing of the case was asked for by the plaintiff and upon this the court delivered its decision October 13, 1899, sustaining its earlier decision and denying the plaintiff's request. The opinion is in the following language:

The plaintiff seeks, by his first contention, to bring his case within the principle which requires a master to furnish reasonably safe premises for his servant, and that, when a master delegates to a servant a duty which belongs to himself, the servant will occupy the place of the master, and not that of a fellow-servant. But we do not think that the case falls within this principle. The defect was not a defect in the construction of the floor itself, but that which was complained of as rendering the floor dangerous was the grease adhering to the brick composing the floor, which had been thrown upon it in the cleaning out of the pit by Mahar and Farley, and which had been on the floor but two or three hours, an interval, as we thought, too short, in the absence of actual notice, to charge the defendant with constructive notice of the condition of the floor. The cleaning up of floors of manufactories is a part of the duty of employees, rather than of the master; and if such work is not properly done, and an accident results to an employee in consequence, the negligence, in the absence of notice of the conditions to the master, is clearly, as it seems to us, the negligence of a fellow-servant or servants.

The plaintiff further contends that the work done by Mahar and Farley was not, as maintained by the defendant, work in the ordinary conduct of the defendant's business, and therefore argues that they were not fellow-servants with the plaintiff, but were as much strangers to the plaintiff, so far as this employment is concerned, as though they had never been employed by the defendant, or, to put it in other words, as though, having been employed by the defendant at some time, they had been discharged, and reemployed for this particular work. We do not, however, take this view of the matter. The cleaning out of a pit which has been occupied by the gearing of a machine, or the scrubbing of a floor which has become greasy, is, it seems to us, a mere incident of the manufacturing which the defendant was carrying on in its works, and the servants who were engaged in it were as much engaged in a common employment, to wit, the manufacturing of rubber goods, which was the business of defendant, as was the plaintiff, who was employed in the course of that manufacturing in feeding rubber strap to a grinding mill.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—NEGLIGENCE OF EMPLOYER—*Texas Midland Railroad v. Taylor*, 53 *Southwestern Reporter*, page 362.—Suit was brought by Eliza L. Taylor to recover damages for the death of her husband, one John W. Taylor, caused, as alleged, by the negligence of the defendant company above named, in whose employ, as a locomotive fireman, Taylor was when killed. The evidence showed that Taylor was leaning out of the cab of his engine while the train was running over a certain track, trestle, and bridge, and that while thus engaged he was struck by a part of the bridge and killed. In the district court of Hunt County, Texas, a judgment was rendered in favor of the plaintiff and the defendant company appealed the case to the court of civil appeals of the State, which rendered its decision May 13, 1899, and affirmed the judgment of the lower court. The company then applied to the supreme court for a writ of error, but such action was refused.

The opinion of the court of civil appeals was delivered by Chief Justice Finley, and the following is taken therefrom:

We have carefully considered the evidence as contained in the statement of facts, and announce these conclusions of fact as authorized therefrom: (1) The bridge and track were defective in construction, and not in a proper state of repair, and this constituted negligence on the part of the company, and caused the death of John W. Taylor, who was the husband of appellee. (2) The facts do not show that the deceased husband was guilty of contributory negligence. (3) The evidence justified the finding of the jury, and we conclude that the deceased did not know of the defective condition of the bridge and track. (4) The deceased was at his post of duty at the time he received the fatal injury through the negligence of his employer.

Applying familiar principles of law to the foregoing facts, the husband of appellee, without fault or negligence on his part, having received injuries resulting in his death, caused by the negligence of appellant, appellee was entitled to recover such pecuniary damage as she suffered from the death of her husband. We find no error in the judgment, and it is therefore affirmed.

RELIEF ASSOCIATIONS—BILL TO DISSOLVE—*Atnip v. Tennessee Manufacturing Co. et al.*, 52 *Southwestern Reporter*, page 1093.—A bill in equity was filed by J. R. Atnip, in the chancery court of Tennessee to secure the dissolution of a relief association called the "Tennessee Manufacturing Company's Operative Voluntary Relief Association" and the distribution of its funds to those entitled. The decision of the chancellor was rendered April 22, 1898, ordering the dissolution of the association and sending the case to a master in chancery to take proof and report upon certain facts. The defendants appealed the to the court of chancery appeals of the State which rendered its on December 3, 1898, and reversed the decree of the chancellor

and ordered that the bill be dismissed. The case was then appealed to the supreme court of the State, which, in an oral opinion rendered January 14, 1899, affirmed the decision of the court of chancery appeals.

The opinion of the said court of chancery appeals, the only written opinion in the report of the case, contains a clear statement of the facts, and from it, as delivered by Judge Wilson, the following is quoted:

The facts, in brief, appearing in the record, proper to be stated to present the contentions of the parties, are these:

In 1886, the operatives of the Tennessee Manufacturing Company, a corporation of this State, with its *situs* at Nashville, Davidson County, Tenn., aided and stimulated by the company, organized the relief association under the name stated in the bill. It was never incorporated, and its object was purely charitable, and not in any way for profit. The central idea of the scheme was to provide a fund, by monthly contributions from its members, from which to aid sick members, bury its dead, and pay a benefit to the families of its deceased members. Its membership was confined to the employees and operatives of the defendant manufacturing company. The association adopted a set of regulations or by-laws for its government. These regulations or by-laws, so far as pertinent to the issues in the case, are as follows: Section 1 names the association, and provides for the relief fund, and the purposes for which it shall be used. Section 2 puts the management of its business under the control of a joint advisory committee, composed of five members, and this section provides that the treasurer of the manufacturing company shall be ex officio a member of this committee, and its chairman. Section 3 provides that the contributing members of the association shall select three members of this joint advisory committee, and the manufacturing company two, and that its members shall hold for a year, and until their successors are elected according to the regulations. It also provides for stated and called meetings of the committee. Section 4 makes the manufacturing company the custodian of the funds of the association, and responsible for their safe-keeping, but not liable for any of its contracts or obligations beyond its funds in its hands. It also makes the treasurer of the manufacturing company treasurer of the relief fund of the association. But the investment of its funds was put in the hands of the manufacturing company. Section 5 states that the association is in no sense organized for profit, and that it is not a legal body, and that no liability is imposed upon its members beyond monthly dues; but it provides that the funds of the association shall be liable for the benefits offered by it to its members. Section 7 is as follows: "The association being purely mutual and for the sole benefit of the employees, it is understood that, if the membership should fall below a sufficient number to make the monthly dues on the part of the employees less than \$100 per month for three successive months, the association will disband, and any funds remaining in the hands of the treasurer at the time shall be held subject to the order of the advisory committee, for the benefit of those who were members not in arrears for dues at the time of the suspension, subject to the regulations governing such benefits." Under section 9 no one not in the employ of the manufacturing company can become or remain a

member or be entitled to benefits. Under section 19, a member leaving the employ of the manufacturing company, and having complied with all its rules, and who had not received any benefit from the association, is entitled to have returned to him 50 per cent of all dues paid in by him during the year in which he leaves. Section 20 provides that any member leaving the employ of the manufacturing company without complying with its rules will not be entitled to receive any return of dues, whether he has or has not received benefits. Section 21 provides that any member discharged from the employ of the manufacturing company for any cause, if the case be mild, shall receive back 33 $\frac{1}{3}$ per cent of the dues paid in by him during the year in which the discharge is made; if discharged for a serious default, only 25 per cent; and if the cause of his discharge is flagrant, nothing. And the advisory committee is invested with power, after investigation, of deciding the character and nature of the ground of his discharge. Under section 23, the treasurer can pay no benefit unless it is approved by each member of the advisory committee or a majority thereof, which is to be evidenced by a written order duly signed. Under section 24, the relief fund of the association is to be formed and maintained by voluntary monthly payments by members of the association, and \$100 a month by the manufacturing company, if the contributions monthly of the members amount to that sum, or by the payment by the company of a sum equal to the contributions of the operative members. Section 29 provides that no change shall be made in these regulations unless first proposed by the advisory committee, and acted on formally by the association, and then approved by the board of directors of the manufacturing company.

Complainant, Atnip, was an employee of the company for a number of years, and was a member of the association. He paid his monthly dues of \$1 until about the time he filed this bill. He had received in sick benefits \$33.50. The manufacturing company was not operating its plant when the bill was filed. It had, temporarily, shut down. It resumed operations in June after the bill was filed. Complainant returned to work when the company resumed operations, and was told by Goodwin, through an agent, that he was not wanted, and the overseer was instructed to give him his time. No reason was given for his discharge. It is inferred, from the whole tenor of the evidence in the record, that his services were no longer desired because of his activity in seeking a dissolution of the association and a distribution of its funds. The proof tends to show that members hesitated, or were afraid, to take active steps to dissolve the association, in view of the attitude of the officials in control of the manufacturing company, and for the reason that they apprehended it might result in their dismissal from the employment of the company, although there is no direct or certain evidence that the company or its officials used any threats or directly attempted any coercion in the matter. Several years ago the monthly contributions of members of the association, operatives of the company, fell below \$100, and for more than three months before the bill was filed the monthly dues paid into its relief fund did not exceed \$30 or \$40. For a year or more, while the monthly dues were thus under \$100, complainant, with knowledge of this fact, continued a member of the association, paid his dues, and participated in its affairs. The manufacturing company ceased to make donations or to pay anything to the funds of the association in October, 1891. Up to

this time it had paid into the funds \$5,692. In February, 1890, the dues of the members had fallen below \$100 per month, and at no time since have their monthly dues amounted to this sum. The total dues received by the association from members between October 31, 1891, and June, 1897, amounted to about \$3,500. Its total receipts from dues and interest on investments between these dates aggregated \$4,609.51.

In February, 1896, a petition was signed by a number of members looking to a dissolution of the association and the distribution of its funds. The membership, at that time, was 31 or 32. A meeting was called to consider the propriety of disbanding the association, February 29, 1896. A meeting was held. Goodwin was called upon, and asked to preside over this meeting. He was an officer of the manufacturing company. After some demur on his part, and saying that he was not a member of the association, and that they should select one of their own members, he was induced to preside. From the evidence, he was elected chairman of the meeting without objection or opposition. There is no proof that he attempted, as chairman, to browbeat or dictate to the members of the meeting as to the action they should take. He did say, however, when he was informed that the purpose of the meeting was to take action looking to the dissolution of the association and the distribution of its funds among its members, that, in his opinion, under the rules of the association, the funds were under the control of its advisory committee, to be used for the ends stated in its by-laws, and that no distribution of the fund among the members could be made. This opinion of Goodwin, it seems, was acquiesced in by the meeting, and, after several motions, it resolved to let the association proceed as it had in the past. Since that time several members have been taken into the association. It appears, also, so far as is disclosed by the record, that there is no desire on the part of a majority of the continuing members of the association, operatives of the defendant company, to have a dissolution of the association and a distribution of its funds.

While the regulations of the association were obviously drawn with guarded care, and so framed as to give the manufacturing company the final and ultimate power over its funds, it does not appear, from the evidence in the record, that the manufacturing company has ever attempted to misuse its funds, or to divert them to any purpose not authorized by its cause, and in the contemplation of all parties when it was organized, or in contemplation of parties joining it since. There is, as before intimated, evidence tending strongly to show that the manufacturing company was not favorably inclined towards employees, members of the association, who saw proper to take steps to disband it and have a distribution of its funds.

We are of opinion, from the facts appearing in the record, that complainant is not entitled to the decree he seeks, and which the chancellor granted. The learned chancellor, we infer from his decree, proceeded on the theory that, under section 7 of the regulations of the association, any member of it had the right to demand a distribution of its funds when the monthly dues of the company's operatives, members of it, fell below \$100 for three successive months, although a majority of the members, or all of them, except the demanding member, wanted it to continue in existence and operation. If his honor went on this ground, we can not concur in his opinion. At the most,

on this theory, all the excepting member could demand would be his proportion of the fund on hand at the time. Under the rules, the category in respect to dues suggested did not, of itself, work a dissolution of the association, and it was competent for a majority of its members to continue it, notwithstanding the dues had fallen below the sum fixed, for the period stated. Voluntary associations, of the character of the one before us in this case, are not partnerships, either between their members or as to the public or third persons, unless made so by some statute. The jurisdiction of courts of equity over them does not, therefore, rest upon the ground that they are partnerships; and it follows, furthermore, that they are not, as in case of partnerships, authorized to decree their dissolution, and a distribution of funds among the members, because of the expulsion of a member, or because of such dissensions among their members as would authorize such action in case of partnerships. But, while the above rule is true, it is also true that equity will intervene upon a proper application, and protect the property rights of members in these associations. It may be conceded, and so it has been held, that a court of equity may restrain an association from further operation where its officers have been guilty of illegal conduct, and an injunction is necessary to protect its assets from further wrongful waste or administration. But this case does not rest nor proceed upon the theory of any waste or any illegal management of the association or its fund, and, if the bill were predicated on this theory, it is not sustained by the proof. Nor does the complainant sue for the benefit of all the members to enforce a right of the association.

It is argued that, under the rules of this association, a status or situation existed authorizing any member to demand its disbandment and the distribution of its fund when the monthly dues of its members fell, for three successive months, below \$100. The answer to this contention is twofold. In the first place, conceding that the by-law authorized what is claimed in the argument, it is not self-executing, as we have before stated; and, in the second place, it could be waived or set aside by the members, so as to allow the association to continue in existence and operation, and thus keep intact its funds, at least as to the members assenting to its continued existence and operation, and, in such case, no one could demand his proportion of the fund, except a dissenting member, even if he could. It may be further answered to the contention suggested that the by-law of the association in question is easily susceptible, when taken together with all the other regulations, of a construction different from that involved in the contention; and that courts, as a general proposition, are disposed to construe the rules of such association as they are construed by the associations themselves or their own tribunals, where such construction is not in conflict with the law of the land or some established public policy.

Another objection to the maintenance of this suit is that complainant does not appear to have appealed to the association, or its constituted agency or tribunals, to get his rights, whatever they are, in its assets. It may be very true, as forcibly argued, that, under the wording of the rules of this association, the final power is lodged in the manufacturing company over the fund, and that, under this construction of the rules, a club is put in the hands of the manufacturing company to intimidate

its employees, members of the association, from asserting their rights to its assets. It is only necessary to say that, in our opinion, when a case is presented showing that this manufacturing corporation attempts to thus pervert its relation to this association, and browbeat its employees into surrendering their rights as citizens, and rights as members of the association, to see that its trust fund is used for the purposes for which it was created, a court of equity will promptly lay its hands on it, and remove it from its custody of the fund, and make it account for it. No such case is made in the bill, and none in the evidence. For the reasons stated, we are of the opinion that the decree of the chancellor is erroneous, and must be reversed, and the bill be dismissed, with costs; and it is so ordered.

SEAMEN—LIEN FOR WAGES—*The Glenesslin*, 96 *Federal Reporter*, page 768.—This was a suit in rem, brought in the United States district court for the district of Oregon, to recover wages and expenses incurred by the libelants on the faith of an engagement to ship as seamen on the ship *Glenesslin*.

The decision dismissing the libel was rendered by District Judge Bellinger September 14, 1899, and his opinion reads as follows:

The libel alleges that on the 19th day of June, 1899, the master of the *Glenesslin*, through his agents, employed libelants as seamen to serve upon the ship from the port of Portland to a port in South Africa; that libelants were at the time in San Francisco, and that it was understood and agreed that the ship would pay the cost of their transportation from San Francisco to Portland, and the cost of their board and lodging from said 19th of June until they should go aboard said ship; that thereafter the master employed other sailors. The libel is brought to recover the cost of passage from San Francisco, and the cost of board and lodging, and also for wages for the voyage for which the libelants expected to ship.

The testimony shows that Frank Turk and Patrick Lynch were engaged by the master of the *Glenesslin* to go to San Francisco and secure a crew for the ship, and that they engaged libelants for that purpose and brought them to Portland. Turk and Lynch advanced the money required for libelants' traveling expenses. No shipping articles were signed, and there is no claim that services were rendered.

Where services have not, in fact, been rendered, there can be no lien as for wages, except in the cases provided for in section 4527 of the Revised Statutes, where a shipping agreement has been signed, and the seaman is thereafter unwarrantably discharged by the master. In such cases a sum equal to one month's wages may be recovered. This is not such a case. There is no question in the case as to whether Turk and Lynch, who went to San Francisco at the instance of the master, and rendered service and expended money in bringing a crew to Portland for the *Glenesslin*, are entitled to a lien for such services and expenditures. They are not parties, and nothing is claimed on their account. The libel is dismissed.

SEAMEN—LIEN OF FISHERMEN ON VESSEL, ETC.—*The Carrier Dove*, 97 *Federal Reporter*, page 111.—This case was heard in the United States circuit court of appeals for the first circuit, on appeal from the United States district court for the district of Massachusetts.

The facts in the case are not material, and but one point in the decision of the court of appeals rendered October 27, 1899, is of importance as a "labor decision." It is stated as follows in the opinion of the court, which was delivered by District Judge Webb:

Fishermen are seamen, having uses and customs peculiar to their business, but are at the same time, except as modified by their peculiar contracts, express or implied, protected by the law as other seamen are. For their wages they can look to the vessel, her master, and ordinarily her owners.

LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE JANUARY 1, 1896.

[The Second Special Report of the Department contains all laws of the various States and Territories and of the United States relating to labor in force January 1, 1896. Later enactments are reproduced in successive issues of the Bulletin from time to time as published.]

ARKANSAS.

ACTS OF 1899.

Act No. 102.—*Weighing of coal at mines.*

SECTION 1. It shall be the duty of every corporation, company or person engaged in the business of mining and selling coal by weight or measure, and employing twenty or more persons, to procure and constantly keep on hand at the proper place, the necessary scales and measures and whatever else may be necessary, to correctly weigh and measure the coal mined by such corporation, company or person, and it shall be the duty of the mine inspector to visit each coal mine operated therein, and where such scales and measures are kept, at least once in each year, and test the correctness of such scales and measures. The owner or operators of such coal mine, or any two or more of the miners working therein, may, in writing, require his attendance at the place where such scales and measures are kept, at other times in order to test the correctness thereof, and it shall be his duty to comply with such request as soon as he can after receiving such request.

SEC. 2. All coal mined and paid for by weight shall be weighed before it is screened, and shall be paid for according to the weight so ascertained, at such price per ton or bushel as may be agreed on by such owner or operator and the miners who mined the same: *Provided*, That nothing in this act shall be so construed as to prevent said owner or operator from having the right to deduct the weight of any sulphur, slate, rock or other impurities contained in the car and not discoverable until after the car has been weighed.

SEC. 3. Any corporation or person violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall, for each offense, be fined not less than twenty-five dollars (\$25) and not more than five hundred dollars (\$500); and the officers, agents or employees of the corporation or company whose duty it was to do or perform the acts, or to cause it to be done and performed, which is the subject of the indictment, may be indicted jointly with said corporation or company, and upon conviction thereof be fined in any sum not less than twenty-five dollars (\$25) nor more than five hundred dollars (\$500).

SEC. 4. All laws and parts of laws in conflict with this act are hereby repealed, and this act shall take effect ninety (90) days after its passage.

Approved April 10, 1899.

Act No. 111.—*Convict labor—County convicts.*

SECTION 1. Section 931 of Sandels & Hill's Digest is hereby amended so as to read as follows: In case the county court or judge thereof is unable to make a contract with any person in the county as provided in section 910, the court or judge thereof may contract for the work of its prisoners with some person in some other county of the State, according to the provisions of this act; and if the county court or judge thereof be unable to make a satisfactory contract with some person of some other county, then the county court or judge thereof may order the prisoners to be worked on the public roads, bridges, levees, or any other public improvements of the county, or perform any other lawful labor for the benefit of the county, under such rules and regulations not inconsistent with the provisions of this act, as the county court or judge thereof may prescribe: *Provided*, That plenary power is hereby conferred upon the county levying court, at its regular meeting, to authorize the county court or the judge thereof in vacation, to purchase in the name and for the benefit of the

county, a tract of land not to exceed six hundred and forty (640) acres, or the levying court shall have the power, if it deem best, to direct the court or the judge thereof in vacation, to lease in the name and for the benefit of the county, a farm upon which the county prisoners shall be worked under the provisions of this act.

Sec. 2. Section 932 of Sandels & Hill's Digest is hereby amended so as to read as follows: In the event that the county court or judge thereof shall order the said prisoners to be worked on roads, bridges, levees, or other county improvements, as provided in the preceding section, it shall be the duty of the court or judge thereof to appoint some suitable person as superintendent to take charge of, manage and control the labor of said prisoners, who shall for the purpose of working them, be authorized to employ such guards, or adopt such means to prevent escapes as may be necessary; and he shall have all the power of punishing for refusal to work herein given to contractors, and upon the order of the county judge the sheriff shall deliver to said superintendent all such prisoners in his custody, and receive them back from him whenever he shall return them for any purpose to the jail; and in case no contract as provided in sections 910 and 931 is made by the county court or judge thereof prior to the second Monday of January of any year, then the said court or judge thereof must make the order, as provided in section 931 for working the prisoners on the public roads, bridges, levees, and other public improvements of the county.

Sec. 3. For the purpose of further enforcing this act, the county court or judge thereof shall designate in its order the road districts which shall be first worked under this act, and the prisoners shall work in the district or districts so designated until the road or roads therein shall be put in perfect condition, and the disposition of these prisoners while they are liable to work the roads under this act, and the order of the work shall be in the discretion of the county court or the judge thereof: *Provided*, That the convict defendant shall receive seventy-five (75) cents per day including Sunday, for each day he is so hired out to such contractor, in excess of any liability for care or sickness.

Sec. 4. The county court at its annual meeting for making appropriations, shall make the necessary appropriations to carry out the purposes of this act: *Provided*, That not more than ten thousand dollars (\$10,000) shall be appropriated for any one year.

Sec. 5. All laws and parts of laws in conflict herewith are hereby repealed, and this act shall take effect and be in force from and after its passage.

Approved April 12, 1899.

ACT No. 152.—*Convict labor—County convicts.*

SECTION 1. It shall be the duty of the county contractor, or persons having county prisoners, to safely keep said prisoners and provide them with sufficient wholesome food and clothing, medicine and medical attention, and work said prisoners on a farm or at any lawful labor, and shall not permit them to go at large or control their own labor, and any violation of this section shall be deemed a misdemeanor, and upon conviction thereof in any court having jurisdiction, the said contractor or person hiring said county prisoners shall be fined in any sum not less than the cost and penalty of any such prisoner remaining unpaid, and so permitted to go at large and control his own labor.

Sec. 2. All laws and parts of laws in conflict herewith are hereby repealed, and this act shall take effect from and after its passage.

Approved May 8, 1899.

ACT No. 172.—*Payment of wages.*

SECTION 1. Hereafter it shall be, and it is, unlawful for any milling or manufacturing company, or any other person, corporation or company employing persons to labor for them in the State of Arkansas, to discount the wages of their employees or laborers when payment is made or demanded before the regular pay days, more than at the rate of ten per centum per annum from the date of payment to the regular pay day, and that all laborers shall be paid in currency at the place of business of the company, person or corporation so employing such labor in the State; unless the laborer elects to take drafts or checks in lieu of currency for pay.

Sec. 2. Any evasion or violation of section 1 of this act shall be usury, and a misdemeanor and the person, company or corporation or their agents, violating the same shall be fined in any sum not less than ten dollars nor more than five hundred dollars, and the entire property of the person, company or corporation shall be subject to the payment of the fine and costs.

Sec. 3. All laws and parts of laws in conflict herewith are hereby repealed, and this act shall take effect and be in force within ninety days after its passage.

Approved May 8, 1899.

COLORADO.

ACTS OF 1899.

CHAPTER 96.—*Exemption from execution, etc.*

SECTION 1. The following property, when owned by any citizen of the State of Colorado, in addition to the property now exempt by law, shall be exempt from levy and sale upon any execution or writ of attachment or distress for rent, and shall continue so exempt, to wit: One bicycle and one sewing machine.

Approved April 8, 1899.

CHAPTER 103.—*Hours of labor—Mines and smelters.*

SECTION 1. The period of employment of workmen in all underground mines or workings shall be eight (8) hours per day, except in cases of emergency, where life or property is in imminent danger.

SEC. 2. The period of employment of workmen in smelters, and in all other institutions for the reduction or refining of ores or metals, shall be eight (8) hours per day, except in cases of emergency, where life or property is in imminent danger.

SEC. 3. Any person, body corporate, agent, manager or employer, who shall violate any of the provisions of sections one and two, of this act, shall be deemed guilty of a misdemeanor, and upon conviction, shall be punished by a fine of not less than fifty dollars nor more than five hundred dollars, or by imprisonment not more than six months, or by both fine and imprisonment.

Approved March 16, 1899.

CHAPTER 119.—*Mine regulations.*

SECTION 1. Section 1 of an act entitled "An act to create a Bureau of Mines," etc., approved March 30, 1895, be and the same is hereby amended to read as follows:

SECTION 1. There shall be and is hereby established in this State a department to be known as "The Bureau of Mines of the State of Colorado," the principal office of which shall be maintained at the State capitol, in the city of Denver.

SEC. 2. Section 2 of said act be and the same is hereby amended to read as follows:

SECTION 2. It shall be the duty of the governor to appoint a citizen of this State, having had not less than seven (7) years practical experience in mining in the State of Colorado, together with a practical and scientific knowledge of mining, metallurgy, mineralogy and geology, to the office of commissioner of mines, to hold the said office for the term of four (4) years, or until the appointment and qualification of his successor, as provided in section 1 of article 16 of the constitution of the State of Colorado, who shall take and subscribe the oath of office prescribed by the constitution; and he shall give bond to the State in the sum of \$20,000 to be approved by the governor of the State, conditioned upon the faithful discharge of his duties.

The governor shall have power at any time to remove from office the commissioner of mines, for incompetency, neglect of duty or abuse of the privileges of his office.

SEC. 3. Section 6 of said act be and the same is hereby made section 3 of this act and amended to read as follows:

SECTION 3. The commissioner of mines shall, with the consent of the governor, appoint two inspectors of practical experience in mining, citizens of the United States and legal voters of the State of Colorado, and having had not less than seven (7) years practical experience in mining in the State of Colorado, who shall hold their office for the term of two years, and whose duties shall be as hereinafter specified and he shall appoint a clerk who must have a general knowledge of mineralogy and shall act as assistant curator for the State mineral collection; and before entering upon the discharge of their duties they shall subscribe to the oath required by the constitution, and each give bond to the State in the sum of \$5,000 to be approved by the governor, conditioned upon the faithful performance of their duties, respectively; said bonds shall together with the commissioner's bond, be deposited with the secretary of state. The commissioner of mines may appoint a stenographer, who shall act as assistant clerk, and such other competent assistants as he may deem necessary for the carrying out of the object of this act: *Provided*, Appropriation be made therefor, and shall have the power, with the consent of the governor, at any time, to remove the inspectors, clerks or other assistants for incompetency, neglect of duty or abuse of the privileges of his office.

SEC. 4. It shall be the duty of the inspectors to examine and report to the commissioner the condition of the hoisting machinery, engines, boilers, whims, cages, cars, buckets, ropes and cables in use in all the metalliferous mines in operation in the

State, the appliances used for the extinguishment of fires, the manner and methods of working and timbering the shafts, drifts, inclines, stopes, winzes, tunnels and upraises through which persons pass while engaged in their daily labors, all exits from the mine and how the mine is ventilated, together with the sanitary condition of the same, and also how and where all explosives and inflammable oils and supplies are stored, also the system of signals used in the mine. He shall not give notice to any owner, agent, manager or lessee of the time when such inspection shall be made.

SEC. 5. Section 5 of said act be hereby made section 5 of this act and amended to read as follows:

SECTION 5. The commissioner of mines may as appropriations may be made therefor, from time to time, appoint deputy inspectors in the various mining camps or districts to investigate or report on accidents, or appoint such other competent assistants as he may deem necessary and proper for the carrying out of the object of this act; for the purpose of making more extended geological researches and surveys concerning the mineral districts of the State; the appointments of said deputy inspectors or assistants to become void upon the performance of the specific things or acts designated by the commissioner in their said appointment; but the entire expenses of the bureau must not in any one year be greater than can be paid out of the fund or appropriation provided therefor.

SEC. 6. Section 4 of said act be hereby made section 6 of this act and be amended to read as follows:

SECTION 6. The secretary of the State board of capitol managers shall provide suitable and ample rooms in the State capitol building for the use of said bureau and shall provide the necessary fuel, lights and appurtenances to the proper and creditable management of said office; said office shall be deemed a public office, and the records, books and papers thereof or on file therein, shall be deemed public records of the State; all books and documents and all other articles whatever in the office of the commissioner of mines, shall be transferred by him to his successor in office, who shall give him a receipt for the same. The commissioner shall keep and maintain a complete list and record of all articles, papers and documents received by him and belonging to the said office.

SEC. 7. Section 3 of said act be hereby made section 7 of this act and amended to read as follows:

SECTION 7. It shall be the duty of the commissioner of mines, as he has opportunity and means, aided by the other officers, except the inspectors, of the bureau, working under his instructions, to collect and preserve for study and reference, specimens of all the geological and mineralogical substances including mineral waters found in the State, especially those possessing economic or commercial value, which specimens shall be marked, arranged, classified and described, and a record thereof preserved, showing the character thereof and the place from whence obtained; to collect and in like manner preserve in his office minerals, rocks and fossils of other States, Territories and countries; to collect and make a part of the records of his office the geological surveys and reports bearing upon the mining industry heretofore made by other officers of the State or by the United States Government; to collect and record all data and records giving the history and showing the progress of the mining industry of the State from the earliest date up to the present time; to examine, report and record the geological formation of each important mining district and each important mine, giving the name of the mine, altitude, location, name of owners, character of vein development, character of walls or enclosing rocks, character and extent of ore veins or deposits, methods of ore extraction, powder [power] used, fuel used, water used in boilers, pressure carried, cost of fuel, cost of timbers, cost of transporting supplies to mine, cost per ton for transporting ore to market, method of treatment, cost of treatment per ton, average cost of sinking per foot, average cost of drifting per foot, average number of men employed, wages paid and hours worked, and all other information that will tend to give a correct idea of the expense and serve as a guide to profitable mining and milling of ore; to investigate and report and record the successfully used methods for the recovery of the precious metals, describing in detail mechanical operations of all important milling and reduction plants and results obtained; to investigate, report and record the advancement made in the application of electricity, compressed [compressed] air, water power and steam as labor [labor] saving devices to all branches of mining operations; to collect statistics upon smelting, concentrating, milling and dressing metalliferous ores, and upon all the mineral products of the State for reference and study; to distribute reliable information regarding the product, available supply, location, character and adaptability for economic purposes of the resources of Colorado in coal, coal oil, asphalt, iron, building stone, slates, marble, fire clays, cements, pottery and porcelain [porcelain] clays, asbestos, mica and the various mineral waters, and such other items within the province [province] of this bureau as in the judgment of the

commissioner of mines may be advisable to procure standard works on the mining industry, smelting, concentrating, milling and dressing metalliferous ores, mining engineering, geology, mineralogy and other subjects which can aid in the study and promote knowledge of all who are interested in mining or manufacturing of any of the mineral products of this State; and the commissioner of mines shall give receipt, when demanded, for all enumerated herein to the person from whom he receives them; to make or cause to be made, with the approval of the governor and under the direction of some office of the bureau, exhibits of the mineral resources and products of the State, at such industrial exhibitions held in this or other States or countries, as may be deemed advisable or desirable, and for which due appropriations shall have been or may be provided.

SEC. 8. Section 7 of said act be and the same is hereby made section 8 of this act, and amended to read as follows:

SECTION 8. The commissioner of mines, inspectors, or either of them, shall not act as manager, or agent or lessee, for any mining or other corporation during the term of his office, but shall give his whole time and attention to the duties of the office to which he has been appointed. No office of this bureau nor any agent or person in any way connected therewith, shall make a report of any mine or mining property with the intent to promote or aid in the sale or other conveyance thereof, and any such officer, agent, or person violating this provision shall, upon conviction thereof, pay a fine of not less than five hundred (\$500) dollars, nor more than five thousand dollars (\$5,000) or be imprisoned in the State penitentiary not less than one (1) nor more than three (3) years or both in the discretion of the court. The commissioner shall, on receipt of reliable information relating to the health and safety of the workmen employed in any metalliferous mine, mill or reduction plant in the State, or whenever he deems such inspection necessary, examine or instruct one of the inspectors to examine and report to him the condition of the same. The owner, agent, manager or lessee shall have the right to appeal to the commissioner on any difference that may arise between such parties and the inspector. On receipt of notice of any accident in a mine, mill or reduction plant, whether fatal or not, the commissioner shall inquire into the cause of such accident.

SEC. 9. It shall be the duty of the commissioner of mines to biennially make report to the governor, showing the amount of disbursements of the bureau under his charge, the progress made and such statistical information in reference to mines, mining, milling and smelting as shall be deemed important, and shall transmit copies of said report to the general assembly at the biennial session. There shall be printed at least one thousand (1,000) copies of said report for distribution and said reports shall contain a review of the work of the bureau.

The commissioner may, from time to time, with the consent of the governor, as appropriations [appropriations] may be made therefor, compile, publish and distribute bulletins upon subjects, districts and counties; such bulletins, when treating of a district or county, shall give in detail the history, geology, mines, mills, process of treatment and results, together with a classification and location of mines and prospects together with maps of the same; one thousand (1,000) copies shall be distributed free to State and county officers, public libraries, newspapers, magazines and exchanges of the bureau, and the remainder sold at cost of printing.

SEC. 10. Section 9 of said act is hereby made section 10 of this act and amended to read as follows:

SECTION 10. Every owner, agent, manager or lessee of any metalliferous mine or metallurgical plant in this State shall admit the commissioner or inspector on the exhibition of his certificate of appointment, for the purpose of making examination and inspection provided for in this act, whenever the mine is in active operation and render any necessary assistance for such inspection. But said commissioner or inspector shall not unnecessarily obstruct the working of said mine or plant. The refusal of the owner, agent, manager or lessee to admit the commissioner or inspector to such mine or plant to lawfully inspect the same, shall upon conviction, be deemed a misdemeanor, and shall be subject to a fine of not less than fifty dollars (\$50) nor more than three hundred dollars (\$300) or be imprisoned not less than one (1) nor more than three (3) months or both such fine and imprisonment.

SEC. 11. Section 11 of said act be and the same is hereby made section 11 of this act and amended to read as follows:

SECTION 11. The commissioner and inspectors shall exercise a sound discretion in the enforcement of this act and if they shall find any matter, thing, or practice in or connected with any metalliferous mine or metallurgical plant to be dangerous or defective, so as to, in their opinion, threaten or tend to the bodily injury of any person, the commissioner or inspector shall give notice in writing thereof to the owner, agent, manager or lessee of such mine or plant, stating in such notice the particulars in which he considers such mine, or plant, part thereof or practice to be dangerous

in all mines using hoisting machinery. The code of signals shall be securely posted, in clear and legible form, in the engine room, at the collar of the shaft and at each level or station.

Tenth—That all mines having but one exit, and the same covered with a building containing the mechanical plant, furnace room, and blacksmith shop, shall have fire protection. Where steam is used, hose of sufficient length to reach the farthest point of the plant shall be attached to feed pump or injector, and the same kept ready for immediate use. In mines where water is not available, chemical fire extinguishers or hand grenades shall be kept in convenient places for immediate use.

Eleventh—That all persons shall be prohibited from riding upon any cage, skip or bucket loaded with tools, timber, powder or other material, except for the purpose of assisting in passing same through shaft or incline, and then only upon special signal.

Twelfth—All persons giving or causing to be given false signals, or riding upon any cage, skip or bucket upon signals that designate to the engineer that no employees are aboard, shall be deemed guilty of a misdemeanor under this act.

Thirteenth—That all shafts more than fifty (50) feet in depth equipped with hoisting machinery shall be divided into at least two (2) compartments, and one compartment to be partitioned off and set aside for a ladderway. The ladders shall be made sufficiently strong for the purpose demanded, and in verticle [vertical] shafts, landings shall be constructed not more than twenty (20) feet apart, said landings to be closely covered, except an opening large enough to permit the passage of a man; said ladders shall be inclined at the most convenient angle which the space allows, and shall be firmly fastened, and kept in good repair. In all incline shafts the landings shall be put in as above described, but a straight ladder on the incline of the shaft. Ladders in upraises and winzes shall be likewise provided and kept in repair, but where winzes connecting levels are used only for ventilation and exit, only one such winze on each level need be equipped.

Fourteenth—That hereafter shafts equipped with buildings and machinery, with only the working shaft for exit, shall be divided into at least two (2) compartments, one of which shall be tightly partitioned off and used for a ladderway as hereinbefore provided for, said ladderway shall be securely bulkheaded at a point at least twenty-five feet below the collar of the shaft, and below this bulkhead, a drift shall be run to the surface, if location of drift is upon side hill, or wall without the building and upraised to the surface, if upon a level. Said ladderway and landings shall be kept at all times in good repair and afford easy mode of escape in event of fire.

Fifteenth—That hereafter all tunnels or adit levels at safe distance from mouth of same shall connect with the surface, and be provided with safe and suitable ladders, and thus afford a means of exit in case of fire destroying buildings over mouth of tunnel or adit level.

Sixteenth—That employees engaged in sinking shaft to [or] incline, shall at all times be provided with chain or other kind of ladder so arranged as to insure safe means of exit.

Seventeenth—That all shaft collars hereafter constructed, shall be covered and so arranged that persons or foreign objects can not fall into the shaft. Where a mining cage is used a bonnet which raises with the cage and falls back into place when the cage descends [descends] shall be used. This bonnet or shaft cover need not be tight beyond what would exclude anything from falling into the shaft that would endanger life, and the cage shall also be equipped with safety clutches and a steel hood, or bonnet, oval in shape, if solid, and if divided in the middle and hinged at the sides, the angles of the sides when closed shall not be less than forty-five degrees, nor the steel less than three-sixteenths [3-16] of an inch thick.

When wooden doors are used, the shaft must be housed in and covered and said doors so constructed as to stand at an angle of not less than forty-five degrees pitch, when closed, hinged at the lower sides, and opening upward, or outward, and said doors shall not be less than four inches in thickness.

Eighteenth—That all stations or levels shall, when practicable, have a passage-way around the working shaft, so that crossing over the working compartment can be avoided. At all shaft stations a guard rail or rails shall be provided and kept in place across the shaft, in front of the level, so arranged that it will prevent persons from walking, falling or pushing a truck, car or other conveyance into the shaft. All winzes and mill holes extending from one level to another shall be covered or surrounded with guard-rails, to prevent persons from stepping or falling into the same.

Nineteenth—That where any shaft is sunk on a vein, ore shoot or body, a pillar of ground shall be left standing on each side of the shaft of sufficient dimensions to protect and secure the same, and in no case shall stoping be permitted up to or

within such close proximity to the shaft as to render the same insecure, until such time as the mine is to be abandoned and said pillar withdrawn.

Twentieth—That all abandoned mine shafts, pits or other excavations endangering the life of man or beast shall be securely covered or fenced.

Twenty-first—That any person or persons removing or destroying any covering or fencing placed around or over any shaft, pit or other excavation, as hereinbefore provided, shall be deemed guilty of a misdemeanor under this act, and upon conviction thereof in any court of competent jurisdiction shall be fined in a sum of not less than fifty dollars (\$50) or more than three hundred dollars (\$300) or imprisonment in the county jail for six (6) months or by both fine and imprisonment.

Twenty-second—That any person or persons operating any metalliferous mine or mill and employing five or more men, shall report the same to the bureau of mines and state when work is commenced and when stopped, and mines working continuously shall report on or before December 1, of each year, together with the names of the owners and managers or lessee in charge of said work, together with the post-office address, the name of the claim or claims to be operated, the name of the county and mining district, together with the number of men employed, directly or indirectly, the same being classified into miners, trammers, timbermen, ore sorters, mill men, teamsters, etc. The necessary blanks to carry out the provisions of this section shall be furnished upon application by the commissioner of mines.

Twenty-third—That any owner, lessee, manager, superintendent or foreman in charge of any metalliferous [metalliferous] mine who shall willfully misrepresent or withhold facts or information from any inspector or other officer of this bureau regarding the mine, such as length of time timbers have been in place, or making any misrepresentation tending to show safety when the reverse is true, shall be deemed guilty of a misdemeanor, and upon conviction thereof in any court of competent jurisdiction, shall be fined in any sum not less than one hundred dollars, nor more than three hundred dollars.

Twenty-fourth—That strangers or visitors shall not be allowed underground in any mine, unless accompanied by some owner, official or employee deputized to accompany same.

Twenty-fifth—Notice of the maximum number of men permitted to ride upon or in the cage, skip or bucket, at one time, shall be posted at the collar of the shaft and at each level. All men or employees riding upon or in an overloaded cage, skip or bucket, as provided in notice so posted, shall be guilty of a misdemeanor, and upon conviction in a competent court, shall be fined not less than five dollars, nor more than fifty dollars for each and every offense.

Twenty-sixth—The commissioner of mines or inspectors under this act shall have power to make such examination and inquiry as is deemed necessary to ascertain whether the provisions of this act are complied with; to examine into and make inquiry respecting the condition of any mine, mill or part thereof, and all matters or things connected with or relating to the safety of the persons employed in or about the same; to examine into and make inquiry respecting the condition of the machinery or mechanical device, and if deemed necessary, have same tested; to appear at all coroner's inquests held, respecting accidents, and if deemed necessary, call, examine and cross-examine witnesses; to exercise such other powers as are necessary for carrying this act into effect.

Twenty-seventh—Any person, owner, agent, manager or lessee operating a metalliferous mine or mill in this State, who fails to comply with the provisions herein set forth, shall be deemed guilty of a misdemeanor against this act, and, when not otherwise provided, shall be liable to the penalty prescribed in section 13 of this act, or to a fine of not less than twenty-five dollars (\$25), nor more than three hundred dollars (\$300), for each and every provision not complied with, or both, at the discretion of the court.

SEC. 21. The secretary of state shall provide the bureau of mines with a seal, the same to be marked "The Bureau of Mines of the State of Colorado," and bear the coat of arms of the State. The commissioner of mines is hereby empowered to affix seal to all certified copies of sections of record and shall charge the legal rate allowed for such service. Any and all moneys thus collected shall be transferred to the proper officer and by him credited to the bureau of mines fund.

SEC. 22. All justices of the peace and county courts in their respective counties, shall have original jurisdiction in prosecution for the violation of sections nine (9), ten (10), thirteen (13), nineteen (19) and twenty (20), of this act, with the right to appeal from judgment of justices of the peace to county courts in their respective counties, under the same conditions as in civil cases; and in all trials before justices of the peace and in county courts the defendant shall be entitled to a trial by jury as in other misdemeanor cases. District courts in their respective districts shall have

original jurisdiction upon information or indictment in all prosecutions for violations of this act.

SEC. 23. Sections eight (8), sixteen (16) and seventeen (17) of said act be and the same [are] hereby repealed.

SEC. 24. Section 20 of said act be and the same is hereby made section 24 of this act.

SEC. 25. An act dividing the State into metalliferous mining districts and appointing an inspector of mines, approved April 1, 1889, and all other acts inconsistent herewith are hereby repealed.

SEC. 26. Section 21 of said act be and the same is hereby made section 26 of this act.

Approved April 10, 1899.

CHAPTER 124.—*Protection of wages of laborers, etc., on public works.*

SECTION 1. Hereafter it shall be the duty of councils of cities, trustees of incorporated towns, boards of commissioners of counties, and boards of directors of school districts within the limits of municipal corporations, which have contracted for the construction of public works, to withhold [withhold] payment of moneys due the contractor for the construction of such public works, to satisfy the claims of laborers, subcontractors and others performing labor or furnishing materials upon or for such public works, in the manner hereinafter prescribed.

SEC. 2. Before any payment shall be made to the contractor as may be provided for in the contract for the construction of such public works, the contractor shall present to the council of cities, trustees of towns, boards of commissioners of counties and directors of school districts, a statement in writing showing the amounts owing by him for labor performed or materials furnished, and the names of the persons to whom such sums are due, and in case such contractor shall have sublet a part of such works, the statement shall show the sum owing the subcontractor, and shall be accompanied by a statement from the subcontractor showing names of persons performing labor or furnishing materials at the instance of such subcontractor, and amounts due such persons respectively; such statement shall be verified under oath by the contractor or subcontractor that the same correctly states the sums owing for labor and materials, with names of persons to whom such sums are owing.

It shall be the duty of clerks of cities and towns and of boards of county commissioners and the secretary of school districts, to cause to be published in some newspaper of general circulation in the county, a notice in substance, that at a designated meeting of the council, trustees, board of commissioners or directors of school districts as the case may be, to be held not less than 10 days from the date of the first publication of such notice, payment will be made the contractor and that claimants to whom sums are owing for labor or materials, may file with the clerk of cities, towns, and board of commissioners or secretary of school districts, on or before the day of such meeting.

SEC. 3. Any person, to whom a contractor or subcontractor may be indebted, may file with the clerk of such city, town, or boards of county commissioners or secretary of the school district, his claim, or before time designated in notice, duly verified upon oath as correct, in which shall be stated the amount claimed as owing, the name of the contractor or subcontractor by whom he was employed, or at whose instance he furnished material. If such claims tally with statement of contractor or subcontractor as to amount due, name of claimant, the amount claimed shall be paid directly to claimant, and shall be deducted out of sum to be paid contractor or subcontractor, as case may be; *Provided*, Where the amounts due contractor or subcontractor are insufficient to pay the claims filed, the sum to be paid contractor or subcontractor shall be pro rated among the respective claimants against such fund in proportion to amount of claims. In case claim filed shall not be admitted, or tally with statements filed by contractor or subcontractor as aforesaid, such claimant shall within 30 days bring suit in some court of competent jurisdiction to recover judgment against the contractor or subcontractor by whom he was employed, or for whom he furnished materials, and upon filing a transcript, showing final judgment has been recovered, together with a certificate of clerk of court, that the same has not been appealed from, shall be entitled to be paid the same as if claim had been admitted as aforesaid. Two or more claimants against the same person may join in suit, and recover one several judgment upon which execution may issue as in other cases.

SEC. 4. This act shall not be construed to prevent payments being made to a contractor during the progress of the work, but no payment shall be made unless receipts are produced from all subcontractors including laboring men and material men, up to the date of any such payment, nor shall it apply to contracts, where the contract price is less than \$200.

Approved April 10, 1899.

CHAPTER 154.—*Trade-marks of trade unions, etc.*

SECTION 1. Whenever any person, or any association or union of workmen, has heretofore adopted or used, or shall hereafter adopt or use, any label, trade-mark, term, design, device or form of advertisement for the purpose of designating, making known, or distinguishing any goods, wares, merchandise or other product of labor, as having been made, manufactured, produced, prepared, packed or put on sale by such person or association or union of workmen or by a member or members of such association or union, it shall be unlawful to counterfeit or imitate such label, trade-mark, term, design, device or form of advertisement, or to use, sell, offer for sale or in any way utter or circulate any counterfeit or imitation of any such label, trade-mark, term, design, device or form of advertisement.

SEC. 2. Whoever counterfeits or imitates any such labels, trade-mark, term, design, device or form of advertisement; or sells, offers for sale or in any way utters or circulates any counterfeit or imitation of any such label, trade-mark, term, design, device or form of advertisement; or keeps or has in his possession with intent that the same shall be sold or disposed of, any goods, wares, merchandise or other product of labor to which or on which any such counterfeit or imitation is printed, painted, stamped, or impressed; or knowingly sells or disposes of any goods, wares, merchandise or other product of labor contained in any box, case, can or package, to which or on which any such counterfeit or imitation is attached, affixed, printed, painted, stamped or impressed; or keeps or has in his possession with intent that the same shall be sold or disposed of, any goods, wares, merchandise or other products of labor in any box, case, can or package to which or on which any such counterfeit or imitation is attached, affixed, printed, painted, stamped or impressed shall be punished by a fine of not more than five hundred dollars (\$500), or by imprisonment for not more than three months or by both such fine and imprisonment.

SEC. 3. Every such person, association or union that has heretofore adopted or used, or shall hereafter adopt or use, a label, trade-mark, term, design, devise, [device] or form of advertisement as provided in section 1 of this act, may file the same for record in the office of the secretary of state by leaving two copies, counterparts or fac-similes thereof with said secretary, and by filing therewith a sworn application specifying the name or names of the person, association or union on whose behalf such label, trade-mark, term, design, device or form of advertisement shall be filed; the class of merchandise and description of the goods to which it has been or is intended to be appropriated stating that the party so filing or on whose behalf such label, trade-mark, term, design, device or form of advertisement shall be filed, has the right to the use of the same; that no other person, firm, association, union or corporation has the right of such use, either in the identical form or in any such near resemblance thereto as may be calculated to deceive and that the fac-simile or counterparts filed therewith are true and correct. There shall be paid for such filing and recording a fee of one dollar. Said secretary shall deliver to such person, association or union so filing or causing to be filed any such label, trade-mark, term, design, device or form of advertisement, so many duly attested certificates of the recording of the same as such person, association or union may apply for, for each of which certificates said secretary shall receive a fee of one dollar. Any such certificate of record shall in all suits and prosecutions under this act be sufficient proof of the adoption of such label, trade-mark, term, design, device or form of advertisement. Said secretary of state shall not record for any person, union or association and [any] label, trade-mark, term, design, device or form of advertisement that would probably be mistaken for any label, trade-mark, term, design, device or form of advertisement theretofore filed by or on behalf of any other person, union or association. But the said secretary shall file and record under this act any label, trade-mark, term, design, device, or form of advertisement, which may have been previously filed by any person, or any association or union of workmen, provided the person, association or union seeking to file and record under this act is the same person, association or union that previously filed or recorded the same label, trade-mark, term, design, device or form of advertisement.

SEC. 4. Any person who shall for himself or on behalf of any other person, association of [or] union procure the filing of any label, trade-mark, term, design, or form of advertisement in the office of the secretary of state under the provisions of this act, by making any false or fraudulent representations, or declarations, verbally on [or] in writing, or by any fraudulent means, shall be liable to pay any damages sustained in consequence of any such filing, to be recovered by or on behalf of the party injured thereby in any court having jurisdiction and shall be punished by a fine not exceeding five hundred dollars (\$500) or by imprisonment not exceeding three months, or by both such fine and imprisonment.

SEC. 5. Every such person, association or union adopting or using a label, trade-mark, term, design, device or form of advertisement as aforesaid, may proceed by

suit for damages to enjoin the manufacture, use, display or sale of any counterfeits or imitations thereof and all courts of competent jurisdiction shall grant injunction to restrain such manufacture, use, display or sale and award the complainant in any such suit damages resulting from such manufacture, use, sale or display as may be by the said court deemed just and reasonable, and shall require the defendant to pay to such person, association or union all profits derived from such wrongful manufacture, use, display or sale; and such court shall also order that all such counterfeits or imitations in the possession or under the control of any defendant in such cause be delivered to an officer of the court, or to the complainant to be destroyed.

SEC. 6. Every person who shall use or display the genuine label, trade-mark, term, design, device or form of advertisement of any such person, association or union in any manner, not being authorized so to do by such person, union or association, shall be deemed guilty of a misdemeanor and shall be punished by imprisonment for not more than three months or by a fine of not more than five hundred dollars (\$500).

In all cases where such association or union is not incorporated, suits under this act may be commenced and prosecuted by an officer or member of such association or union on behalf of and for the use of such association or union.

SEC. 7. Any person or persons who shall in any way use the name or seal of any such person, association or union or officer thereof in and about the sale of goods or otherwise, not being authorized to so use the same, shall be guilty of a misdemeanor, and shall be punishable by imprisonment for not more than three months, or by a fine of not more than five hundred dollars (\$500).

SEC. 8. In case the plaintiff is successful in maintaining his action either for damages or for permanent relief by injunction, or for nominal damages only, he shall be entitled to recover a reasonable attorney's fee to be taxed by the court as a part of the costs, and merged in the judgment.

SEC. 9. All acts and parts of acts inconsistent herewith are hereby repealed: *Provided*, That this act shall not be construed as impairing any rights heretofore accrued, nor as affecting the remedies therefor heretofore existing.

Approved April 10, 1899.

CHAPTER 155.—*Payment of wages—Truck system.*

SECTION 1. It shall be unlawful for any person, company or corporation, or the agent or the business manager of any such person, company or corporation, doing business in this State, to use or employ, as a system, directly or indirectly, the "truck system" in the payment, in whole or in part, of the wages of any employee or employees of any such person, company or corporation.

SEC. 2. The words "truck system" as used in the preceding section are defined to be: (1) Any agreement, method, means or understanding used or employed by an employer, directly or indirectly, to require his employee to waive the payment of his wages in lawful money of the United States, and to take the same, or any part thereof, in goods, wares or merchandise, belonging to the employer or any other person or corporation. (2) Any condition in the contract of employment between employer and employee, direct or indirect or any understanding whatsoever, express or implied, that the wages of the employee, or any part thereof, shall be spent in any particular place or in any particular manner. (3) Any requirement or understanding whatsoever by the employer with the employee that does not permit the employee to purchase the necessities of life where and of whom he likes without interference, coercion, let or hindrance. (4) To charge the employee interest, discount or other thing whatsoever for money advanced on his wages, earned or to be earned, where the pay days of the employer are at unreasonable intervals of time. (5) Any and all arrangements, means, or methods, by which any person, company or corporation, shall issue any truck order, scrip, or other writing whatsoever, by means whereof the maker thereof may charge the amount thereof to the employer of laboring men so receiving such truck order, scrip or other writing, with the understanding that such employer shall charge the same to his employee and deduct the same from his wages.

SEC. 3. Any truck order, scrip or other writing whatsoever, made, issued, or used in aid of or in furtherance of, or as a part of, the "truck system" as defined in this act, evidencing any debt or obligation from any person, company or corporation for wages due or to become due to any employee or employees of any person, company or corporation, issued under a system whereby it is the intent and purpose to settle such debt or debts by any means or device other than in lawful money, shall be utterly void in the hands of any person, company or corporation with knowledge that the same had been issued in pursuance of such system, and it shall be unlawful to have, hold or circulate the same with such knowledge.

SEC. 4. Any person who shall violate any of the provisions of this act shall be guilty of a misdemeanor, and shall, upon conviction, be punished by a fine

of not less than one hundred dollars nor more than five hundred dollars, and by imprisonment in the county jail of not less than thirty days, nor more than six months.

SEC. 5. The violation of the provisions of any section of this act by any corporation organized and existing under the laws of this State shall be deemed sufficient cause for the forfeiture of the charter of any such corporation, and the attorney-general of the State shall immediately commence proceedings in the proper court in the name of the people of the State of Colorado, against any such corporation for the forfeiture of its charter.

SEC. 6. Any foreign corporation doing business in this State that shall violate the provisions of any section of this act shall forfeit its right to do business in this State, and the attorney-general of the State shall, upon such violation coming to his knowledge, by information or otherwise, institute proceedings in the proper court for the forfeiture of the right of any such corporation to do business in this State.

SEC. 7. That if the attorney-general of the State should fail, neglect or refuse to commence such actions as are provided for in sections 5 and 6 of this act, after demand being made upon the attorney-general to institute such proceedings by any responsible person, then any citizen of this State shall have the right to institute and maintain such proceedings, upon giving bond for costs of suit.

SEC. 8. The district attorney of any county shall prosecute for any violation of this act in the same manner as he may be required by law to prosecute for the violation of other criminal acts, except as provided in sections 5 and 6 of this act.

SEC. 9. That the provisions of this act shall not be construed to prevent ditch, canal and reservoir companies from contracting or issuing orders or warrants payable at future dates in lawful money of the United States, for labor performed or services rendered for it or to contract for and pay for the same in the capital stock of such companies, or water rights or privileges for water connected with the same.

SEC. 10. That all acts and parts of acts in conflict with any of the provisions of this act are hereby repealed.

SEC. 11. Whereas, in the opinion of the General Assembly an emergency exists; therefore, this act shall be in force and take effect from and after its passage.

Approved March 31, 1899.

CONNECTICUT.

ACTS OF 1899.

CHAPTER 41.—*Employment of children.*

SECTION 1. Any person who shall employ any child under fourteen years of age during the hours while the school which such a child should attend is in session, and any person who shall authorize or permit on premises under his control any such child to be so employed, shall be fined not more than twenty dollars for every week in which such child is so employed.

SEC. 2. Section 2105 of the General Statutes is hereby repealed.

Approved April 5, 1899.

CHAPTER 63.—*Sunday labor—Electric railways.*

SECTION 1. No law of this State affecting travel, business, or labor on Sunday, or the operation on Sunday of any railroad or railway, shall apply to any railroad company or street railway company so as to prohibit or limit the operation, on Sunday, of electric cars.

SEC. 2. This act shall take effect from its passage.

Approved April 19, 1899.

CHAPTER 119.—*Factories and workshops.*

SECTION 1. Section 2265 of the General Statutes is hereby amended to read as follows: All factories and buildings where machinery shall be used shall be well lighted, ventilated, and kept as clean as the nature of the business will permit. The belting, shafting, gearing, machinery, and drums of all factories and buildings where machinery shall be used, when so placed as, in the opinion of the inspector, to be dangerous to the persons employed therein while engaged in their ordinary duties, shall, as far as practicable, be securely guarded. No machinery other than steam engines in a factory shall be cleaned while running, after notice forbidding the same is given by the inspector to the owners or operators of the factory.

SEC. 2. This act shall take effect from its passage.

Approved May 17, 1899.

CHAPTER 135.—*Conditional sales.*

SECTION 1. Every person who shall, with intent to place personal property sold on condition that the title shall remain in the vendor after delivery beyond the control of the vendor, remove, conceal, or aid or abet the removal or concealment of any such property, and any vendee of such property who assents to such removal or concealment, shall be fined not more than five hundred dollars, or imprisoned not more than six months.

SEC. 2. Every vendee of such conditional sale who shall sell or convey the same, or any part thereof, without the consent of the vendor, and without informing the person to whom he sells or conveys, that the same is subject to such conditional sale, shall be fined not more than one hundred dollars, or imprisoned not more than six months.

Approved May 31, 1899.

CHAPTER 170.—*Protection of employees as members of labor organizations.*

SECTION 1. No person or persons, firm or corporation, either directly or by an agent, shall coerce or compel, or attempt to coerce or compel, any laborer, mechanic, or other employee in the employ of such person or persons, firm or corporation, to enter into an agreement, either verbal or written, that, as a condition of retaining his position as such employee, he will not join any labor organization.

SEC. 2. Every person or the agent of any firm or corporation who shall violate the provisions of this act shall be fined not more than two hundred dollars, or imprisoned not more than six months.

SEC. 3. This act shall take effect from its passage.

Approved June 9, 1899.

CHAPTER 197.—*Bureau of labor statistics.*

SECTION 1. Section 3706 of the General Statutes is hereby amended so that the paragraph in said section relating to the salary of the commissioner of the Bureau of Labor Statistics shall read as follows: The commissioner of the bureau of labor statistics, two thousand five hundred dollars and the necessary postage, stationery, and office expenses of said bureau, and the traveling expenses of the commissioner and his assistants, incurred in the performance of the duties of his office, shall be audited by the comptroller and paid in the same manner as the expenses of other departments of the State government.

SEC. 2. Chapter 177 of the public acts of 1889 is hereby repealed.

SEC. 3. This act shall take effect July 1, 1899.

Approved June 15, 1899.

CHAPTER 199.—*Inspection, etc., of factories.*

SECTION 1. The inspector of factories shall, as often as practicable, carefully examine all buildings, apartments, rooms, and places in any tenement or dwelling house used for residential purposes and used in whole or in part other than by the immediate members of the family therein, for the manufacture of coats, vests, trousers, knee pants, overalls, cloaks, skirts, shirts, ladies' waists, artificial flowers, purses, cigars, cigar-ettes, or any articles of wearing apparel intended for sale.

SEC. 2. It shall be the duty of persons engaged in the manufacture of such goods in such premises within thirty days after beginning such manufacture, and, in cases where persons are now engaged in such manufacture in such premises, within thirty days after the taking effect of this act, to notify said inspector of the location of said workroom or workrooms, the nature of the work there carried on, and the number of persons therein employed.

SEC. 3. It shall be the duty of the person operating said workroom or workrooms to keep the same at all times in a thoroughly clean and sanitary condition and to have the same properly lighted and ventilated and fit for the occupancy of the persons engaged in work therein.

SEC. 4. The inspector or any of his deputies shall notify the owner or owners of such premises, and the person using the same for the purposes set forth in section 1 of this act, in the manner provided in section 2270 of the General Statutes, to provide or cause to be provided ample means for lighting or ventilating such workroom or workrooms, and to put the same in a thoroughly clean, sanitary, and fit condition for occupancy for said work; and, if said notification be not complied with in thirty days after the service of such notice, said inspector or any of his deputies shall cause complaint to be made to any grand juror or prosecuting officer of the city, borough, or town in which such workroom or workrooms are located, to the end that violators of the provisions of this act may be prosecuted.

SEC. 5. Any person, firm, or corporation owning, using, or occupying any work-

room or workrooms used for the purposes specified in section 1 of this act shall, for any violation of the provisions of this act, be fined not more than five hundred dollars.

SEC. 6. The expense incurred by the inspector of factories or any of his deputies, while in the performance of their duties under this act, shall, together with the services of the deputies under this act, be paid by the comptroller, on approval of the inspector of factories.

SEC. 7. This act shall take effect on and after the first day of July, 1899.

Approved June 20, 1899.

DELAWARE.

ACTS OF 1899.

CHAPTER 215.—*Publishing report of the factory inspector.*

SECTION 1. Chapter 452 of volume 20, laws of Delaware * * * is hereby amended by adding to said act the following section as section 10 of said act, viz:

SECTION 10. That the chief justice is hereby authorized and empowered to have published, under the direction of said inspector, in pamphlet form any report made to him by said inspector, required by law to be made by said inspector.

The levy court commissioners of New Castle County are hereby required to pay costs of printing and publishing any and every such report upon the presentation to them of the bills therefor indorsed with the approval of the chief justice. The provisions of this act shall apply to the report made by said inspector to the chief justice in the year A. D. 1898.

Approved February 23, A. D. 1899.

CHAPTER 264.—*Sunday labor—Barbers.*

SECTION 1. Any person who carries on or engages in the business of shaving, hair cutting or other work of a barber, or who opens or allows to be open his barber shop, or place where such business is done, for the purpose of carrying on his said business on the first day of the week, commonly called Sunday, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined not less than ten dollars nor more than twenty dollars, and on failure to pay such fine and costs shall be imprisoned not exceeding ten days.

SEC. 2. Any justice of the peace of the county shall have jurisdiction and cognizance of the offenses mentioned in section 1 of this act, except when said offenses are committed in the city of Wilmington, in which case the municipal court of said city shall have exclusive jurisdiction.

Approved February 23, A. D. 1899.

CHAPTER 266.—*Protection of labels and seals of labor organizations, etc.*

SECTION 1. Whenever any labor organization, association or society, having headquarters in the State of Delaware, whether an independent body or a branch of a national or international body, shall adopt and use for the protection of its interests any label or seal, it shall be unlawful for any person, firm, corporation or other labor organization or society to counterfeit or imitate such label or seal with intent to use the same for the purpose of deceiving the public or any person, society or organization.

SEC. 2. Every person, firm, corporation, society, association or organization who shall use any counterfeit or imitation of such labels or seals as described in section 1 of this act, shall be guilty of a misdemeanor and punished therefor.

SEC. 3. No person, firm, corporation, organization or society shall use or display the genuine label or seal of any organization or society in any manner not authorized by law.

SEC. 4. Any person, firm, or corporation filing with the secretary of state of the State of Delaware, two certified copies of the labels or seals referred to above, shall have them officially recorded for the purpose of this act, and shall receive from the secretary of state a certificate to the effect that such record has been made; *Provided*, That such person, firm or corporation shall pay to the secretary of state the sum of five dollars, one-half of which shall be for the use of the State and one-half as compensation for the secretary of state. The certificate issued by him shall be valid for five years, provided it is not annulled within that time by the General Assembly.

SEC. 5. Any person, firm or corporation violating any of the provisions of this act, shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not less than one hundred nor more than one thousand dollars, or imprisonment not less than six months nor more than one year, or both, at the discretion of the court.

SEC. 6. All acts or parts of acts conflicting with this act are hereby repealed.

SEC. 7. This act shall be deemed a public act and published as such.

Approved March 8, A. D. 1899.

RECENT GOVERNMENT CONTRACTS.

[The Secretaries of the Treasury, War, and Navy Departments have consented to furnish statements of all contracts for constructions and repairs entered into by them. These, as received, will appear from time to time in the Bulletin.]

The following contracts have been made by the office of the Supervising Architect of the Treasury:

BUFFALO, N. Y.—November 11, 1899. Contract with Peoria Heating Co., Peoria, Ill., for boiler plant, low-pressure steam heating and mechanical ventilating apparatus, cold water supply system, etc., for post-office, \$63,591.60. Work to be completed within one hundred and eighty working days.

DUBUQUE, IOWA.—December 4, 1899. Contract with Chas. W. Gindele Co., Chicago, Ill., for addition, except heating apparatus, electric wiring, and conduits, to custom-house and post-office, \$70,565.95. Work to be completed within one year.

JACKSON, MISS.—December 28, 1899. Contract with Congress Construction Co., Chicago, Ill., for construction, except elevator, of extension of the court-house and post-office building, including heating and ventilating apparatus and alterations in present building, \$21,655. Work to be completed within nine months.

BULLETIN

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DEPARTMENT OF LABOR.

No. 27—MARCH, 1900.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

OREN W. WEAVER,
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BULLETIN
OF THE
DEPARTMENT OF LABOR.

No. 27.

WASHINGTON.

MARCH, 1900.

WHOLESALE PRICES: 1890 TO 1899. (a)

BY ROLAND P. FALKNER, PH. D.

In the following pages are presented the results of an inquiry into the course of wholesale prices from January, 1890, to July, 1899. It is the purpose of this inquiry to continue, so far as practicable, the investigation the results of which were contained in the Report on Wholesale Prices, Wages, and Transportation, submitted by Mr. Aldrich, from the Senate Committee on Finance, March 3, 1893. That report contained a study of wholesale prices covering the period from 1840 down to 1891. In its analysis the year 1860 was the starting point and the figures after that date received fuller treatment than those which preceded it. The distinctive feature of the investigation was the inclusion of a large number of articles, manufactured products being presented in larger proportions than in any previous investigation of prices. The series of quotations which formed the basis of the principal analysis numbered 223, and these were combined by various methods in order to show as fully as possible the nature of the changes which had taken place since the year 1860.

It has been thought desirable in many quarters to continue that investigation down to the present time. The project was, however, beset with perplexities arising from the difficulty of obtaining from identical sources a continuation of the price quotations for the large number of articles which figured in that investigation. The rapidly changing conditions of business rendered the task more difficult than would appear to the superficial observer. It was a distinctive feature

^aThe actual prices of the various commodities which are shown in the table at the close of this article, and which are the data on which it is based, were collected under the supervision of Dr. Falkner by the experts of the Department of Labor.

of the Aldrich investigation that the prices quoted were in a great majority of cases derived from the records of actual sales of the commodities concerned. A continuation of the prices, such as would have permitted a comparison of more recent prices with those of 1860 as given in the Aldrich report, could only be had where the article remained identical in kind and quality and where the same sources of information were accessible. The attempt to carry out the new investigation on the same lines as the old one revealed the fact that in many cases the firms and corporations from which the original figures were derived were no longer in existence. Newer firms which had taken their places were often unable to identify the figures quoted in the Aldrich report for the years 1890 and 1891 from material in their possession. This implied that an article of the exact grade and quality which had been quoted by the former firms was not traded in by those to whom subsequent application was made. In many cases the articles were no longer in the market. Changes, as, for instance, in the manufacture of woolens and worsted goods, had made new standards for certain classes of commodities.

In order to avoid giving the impression that the present investigation is in every detail a continuation of the Aldrich report, it has been deemed best to give it a slightly different form. This does not destroy its value as a supplement to that investigation, for, though differing in form, it remains in substance on the same basis. The substantial identity of the new work with the old is exhibited by the following statement, which gives the classes of articles included in the Aldrich report and in the present investigation:

WHOLESALE PRICE QUOTATIONS INCLUDED IN THE ALDRICH REPORT AND IN THE PRESENT INVESTIGATION, BY ARTICLES AND GROUPS OF ARTICLES.

Articles in each group.	Aldrich report.	Present investigation.	
	Series of actual and relative prices.	Series of actual prices.	Series of relative prices.
FOOD.			
Baked beans.....	1	1	1
Beans.....	1	1	1
Bread.....	8	4	1
Butter.....	1	1	1
Cheese.....	1	1	1
Coffee, Rio, fair.....	1	1	1
Eggs.....	1	1	1
Fish.....	4	2	1
Flour, wheat.....	1	1	1
Flour, rye.....	1	1	1
Fruit.....	8	4	1
Lard.....	2	1	1
Meal, corn, yellow, kiln-dried.....	1	1	1
Meat, bacon.....	1	1	1
Meat, beef.....	2	5	2
Meat, ham, sugar-cured.....	1	1	1
Meat, lamb.....	1	1	1
Meat, mutton.....	1	1	1
Meat, salt.....	2	2	1
Milk, fresh.....	1	1	1
Molasses.....	2	2	1

WHOLESALE PRICE QUOTATIONS INCLUDED IN THE ALDRICH REPORT AND IN THE PRESENT INVESTIGATION, BY ARTICLES AND GROUPS OF ARTICLES—Continued.

Articles in each group.	Aldrich report.	Present investigation.	
	Series of actual and relative prices.	Series of actual prices.	Series of relative prices.
FOOD—concluded.			
Rice.....	1	1	1
Salt.....	5	2	1
Spices, nutmegs.....	1	1	1
Spices, pepper, whole, Sumatra.....	1	1	1
Starch, corn.....	2	1	1
Sugar.....	4	3	1
Tallow.....	1	1	1
Vegetables, potatoes.....	2		
Total.....	53	43	28
CLOTHES AND CLOTHING.			
Bags, 2-bushel, Amoskeag.....		1	1
Blankets.....	2		
Boots and shoes.....		4	1
Broadcloths.....	2		
Calico, Cocheco prints.....	1	1	1
Carpets.....	3	3	1
Cotton, upland middling.....	1	1	1
Cotton thread, 6-cord, 200 yards, J. & P. Coats.....	1	1	1
Denims, Amoskeag.....	1	1	1
Drillings.....	1	1	1
Felts.....		2	1
Flannels, twilled blue, 3-4, Talbot T.....		1	1
Ginghams, Amoskeag.....		1	1
Hides and leather.....	3	3	1
Horse blankets, 6 pounds, all wool.....	1		
Print cloths.....	2	1	1
Shawls, standard, 72 by 144 inches, weighing 42 ounces, made of XX Ohio fleece wool.....	1	1	1
Sheetings.....	1	2	1
Shirtings.....	1	4	1
Suitings.....	5	1	1
Tickings, Amoskeag, A. C. A.....	1	1	1
Women's dress goods.....		3	1
Wool.....	2	2	1
Total.....	28	35	20
FUEL AND LIGHTING.			
Candles, best adamantine.....	1	1	1
Coal, anthracite.....	7	2	1
Coal, bituminous.....	1	1	1
Matches.....	1	2	1
Total.....	10	6	4
METALS AND IMPLEMENTS.			
Anvils, domestic.....	1		
Bar iron.....	1	1	1
Butts, loose joint, cast, 3 by 3 inches.....	1	1	1
Copper.....	2	2	1
Door knobs, mineral.....	1	1	1
Iron rods, for making common wood screws.....	1		
Iron wire, market, No. 10.....	1		
Lead.....	4	2	1
Locks.....	2	2	1
Meat cutters, Hale's, No. 12.....	1		
Nails.....	1	1	1
Pig iron.....	1	2	1
Pocketknives.....	25		
Quicksilver.....	1	1	1
Rope.....	3	2	1
Saws.....	4	1	1
Scythes.....	1	1	1
Shovels, Ames No. 2, cast steel, D-handle, square point, back strap.....	1	1	1
Spelter.....	1	1	1
Steel.....		2	2
Wood screws, 1-inch, No. 10, flat head, iron.....	1		
Total.....	54	21	16

WHOLESALE PRICE QUOTATIONS INCLUDED IN THE ALDRICH REPORT AND IN THE PRESENT INVESTIGATION, BY ARTICLES AND GROUPS OF ARTICLES—Continued.

Articles in each group.	Aldrich report.	Present investigation.	
	Series of actual and relative prices.	Series of actual prices.	Series of relative prices.
LUMBER AND BUILDING MATERIALS.			
Brick, common domestic building.....	1	1	1
Carbonate of lead.....	1	1	1
Cement, Rosendale.....	1	1	1
Chestnut lumber, in the log, not sawed.....	1	1	1
Doors, pine, unmolded, 2 ft. 4 in. by 6 ft. 8 in., 1½ inches thick.....	1	1	1
Hemlock.....	2	1	1
Lime, Rockland.....	1	1	1
Maple boards, first quality, 1-inch, rough.....	1	1	1
Oak boards, white, plain, first quality, 1-inch, rough.....	1	1	1
Oxide of zinc, American, dry.....	1	1	1
Pine boards.....	8	8	1
Plate glass.....	6	1	1
Putty.....	1	1	1
Shingles, pine.....	3	1	1
Spruce boards.....	1	1	1
Tar, Wilmington.....	1	1	1
Turpentine.....	1	1	1
Window glass.....	3	1	1
Total.....	35	17	15
DRUGS AND CHEMICALS.			
Alcohol.....	1	1	1
Alum, lump, crystal.....	1	1	1
Bichromate of potash.....	1	1	1
Blue vitriol.....	1	1	1
Brimstone, crude.....	1	1	1
Calomel.....	1	1	1
Copperas.....	1	1	1
Flaxseed.....	1	1	1
Glycerin.....	1	1	1
Linseed oil.....	1	1	1
Mercury.....	1	1	1
Muriatic acid.....	1	1	1
Opium.....	1	1	1
Quinine.....	1	1	1
Soda ash.....	1	1	1
Sugar of lead, brown.....	1	1	1
Sugar of lead, white.....	1	1	1
Sulphuric acid.....	1	1	1
Total.....	18	8	8
HOUSE-FURNISHING GOODS.			
Furniture.....	3	3	1
Glassware.....	5	1	1
Pails, wooden.....	3	1	1
Tubs, wooden.....	4	2	1
Total.....	15	7	4
MISCELLANEOUS.			
Powder, rifle.....	2	1	1
Rubber.....	1	1	1
Soap.....	1	1	1
Starch.....	6	2	1
Total.....	10	5	4

WHOLESALE PRICE QUOTATIONS INCLUDED IN THE ALDRICH REPORT AND IN THE PRESENT INVESTIGATION, BY ARTICLES AND GROUPS OF ARTICLES—Concluded.

SUMMARY.

Group.	Aldrich report.	Present investigation.	
	Series of actual and relative prices.	Series of actual prices.	Series of relative prices.
Food	53	43	28
Cloths and clothing	28	35	20
Fuel and lighting	10	6	4
Metals and implements	54	21	16
Lumber and building materials	35	17	15
Drugs and chemicals	18	8	8
House-furnishing goods	15	7	4
Miscellaneous	10	5	4
Total	223	142	99

The purpose of maintaining in the present investigation as nearly as possible the class of articles which figured in the former report has been fairly well attained. Exceptions to the rule are most conspicuous in the groups "Cloths and clothing," "Metals and implements," and "Drugs and chemicals." In the first group named a number of articles have been included in the present investigation for which in the earlier report it was impracticable to secure data covering the whole period from 1860, but which appeared as incomplete series. In this list, as compared with the previous investigation, additions are more conspicuous than omissions. In the group "Metals and implements" there are some omissions, which, however, do not affect the more important articles in the group. In the group "Drugs and chemicals" the omissions are more numerous. The group was more numerously represented in the preceding investigation than its importance would justify. To avoid an undue weight to this group in the final average it was deemed advisable to confine the quotations to the most important articles.

There has also been a considerable reduction in the number of series of price quotations. This has been effected by reducing the number of articles and by giving as a rule a single quotation only for each article. Still more conspicuous has been the reduction in the number of relative prices used in calculating the average relative prices for the groups and for all commodities. While in the Aldrich report each price quotation has the same weight or importance in reaching the average for the group under which it is classed, in this report, where relative prices are given for two or more articles of the same kind, their average is taken and this represents only a single item in calculating the average for the group. For instance, the relative prices of four kinds of bread, viz, Boston crackers, navy ship bread, oyster crackers, and soda crackers, are shown in this report (page 244),

but only one item under the head of bread, the average of the four, is used in computing the average for the group "Food" at a given date. This method has been used in all such cases, except the two important ones of beef and steel, and also applies in calculating the general average for all commodities.

The difference is here not so much one of scope as of emphasis. By increasing the number of articles for which relative prices are given an undue emphasis is attached to unimportant articles. It is perfectly obvious that if all prices followed the same or approximately the same tendencies it would be immaterial whether few or many commodities were included in the computation of relative prices. Now, a study of various price investigations shows that prices in general exhibit certain characteristics, but that individual prices do not all show them in the same degree. The more important the article in the world's trade the more subject it is to changes in price arising from general economic conditions. Hence average relative prices, based upon quotations for a few leading articles, like those of the Economist, show greater fluctuations from year to year than those based upon a larger number of price quotations. They are more subject to the influence of general causes, less to that of individual causes. On the other hand, the more restricted the demand for the article the more slowly does it conform to the price changes which are in operation. If the relative price computation contains many such articles, the general course of prices will show a more deliberate change. No hard and fast rules can be laid down for the selection of a happy mean between too many and too few quotations. The ideal is not attained by increasing the number of articles. The articles which are really fundamentally important in the world's markets are comparatively few in number, and the larger the number of articles selected the more probable it is that some of them are of minor moment, comparatively stable in price and less subject to the general influences of the market which fix what it has been agreed to call general prices. The present analysis does not attempt to solve this question, but an effort has at least been made to avoid a multitude of prices for the same article, giving to it an undue importance. It should, however, be remarked that these doubts as to the number of articles are partially overcome by various methods of averaging the results. The novel feature of the Aldrich report was the attempt to indicate the changes in prices with reference to the cost of living by averaging the prices according to importance measured by this standard. This dictated in large measure the choice of articles and permitted the inclusion of many which were not especially significant in themselves, because when reduced to their importance in consumption, they could not greatly influence the result.

On the other hand, under the method of the simple average greater care must be used in the selection of the articles. As in the present

investigation it is intended to lay greater weight upon this mode of combining the results, some departure from the methods of the Aldrich report seems justified.

A further difference between the methods of the present investigation and those of the Aldrich report lies in the choice of the basis with which prices are compared. In the former investigation the figures for January, 1860, were, for reasons fully explained in that document, taken as a basis. The selection of a single price quotation as a basis for subsequent calculations was not made without certain misgivings, and only finally decided upon as the best thing which could be done under the circumstances. A single price, even though it be normal to all outward appearances, has never been regarded as the ideal basis for a calculation of relative prices. The criteria whether a price is normal are not found in the prices themselves, but in all the surrounding circumstances, and even in the most favorable case there always remains a doubt whether all the conditions which are pertinent have been thoroughly scanned and investigated. In the present investigation, therefore, a somewhat broader basis has been taken—namely, the average of the 9 quarterly prices from January, 1890, to January, 1892, inclusive, of which January, 1891, the conclusion of the former report, is the exact center. By thus including a larger number of prices it has been sought to obviate the irregularity which might arise from possible abnormal prices in January, 1891. It is, moreover, to be observed that the averages thus obtained correspond fairly well with the actual position of prices in January, 1891, since the relative price of all articles for this date, which is the average of the relative prices of 99 articles or groups of articles, is 100.6, while if January, 1891, were taken as the base, the relative price would have been 100. The divergence is not marked, and the difference in the results of the two methods is insignificant. A further reason for the enlargement of the basis of calculation lay in the desire to exhibit the prices in their quarterly movements, and in so far as prices are affected by seasonal variations any criticism of having selected a time of the year as a basis when the prices for a given commodity might be particularly low or particularly high has been avoided.

The results of the investigation into prices are embodied in the tables of actual prices annexed to this report. In order to bring out the tendencies of the changes they have been reduced to series of relative prices. The following table shows the relative prices for each article and group of articles at each quarterly period from January, 1890, to July, 1899.

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES.

FOOD.

Date.	Baked beans, Old South brand.	Beans, pea, York State, mar- row, choice, H. P.	Bread.					Butter, cream- ery, West- ern, extra, firsts.	Cheese, New York, extra.	Coffee, Rio, fair.	Eggs, West- ern, firsts, choice, fresh.
			Boston crack- ers.	Navy ship bread.	Oyster crack- ers.	Soda crack- ers.	Aver- age.				
Jan., 1890..	100.9	86.9	92.0	98.3	98.2	100.0	97.1	106.0	107.1	101.8	107.4
Apr., 1890..	100.9	85.7	92.0	98.3	98.2	100.0	97.1	91.2	115.9	105.8	62.8
July, 1890..	98.1	91.7	102.3	98.3	98.2	100.0	99.7	66.6	78.1	103.1	70.7
Oct., 1890..	97.0	121.9	102.3	98.3	98.2	100.0	99.7	98.6	96.7	108.5	104.7
Jan., 1891..	104.7	105.0	102.3	98.3	98.2	100.0	99.7	115.9	99.5	101.8	149.3
Apr., 1891..	104.7	106.2	102.3	98.3	98.2	100.0	99.7	125.7	120.9	105.8	112.6
July, 1891..	104.7	114.6	92.0	98.3	98.2	100.0	97.1	85.1	81.9	100.4	85.1
Oct., 1891..	97.0	98.9	112.6	112.4	114.5	100.0	109.9	110.9	100.8	85.7	107.4
Jan., 1892..	97.0	89.3	102.3	98.3	98.2	100.0	99.7	130.7	115.9	87.1	130.9
Apr., 1892..	97.0	85.7	102.3	98.3	98.2	100.0	99.7	106.0	123.5	92.4	75.9
July, 1892..	97.0	89.3	102.3	84.3	98.2	100.0	96.2	98.6	88.2	91.1	82.5
Oct., 1892..	104.7	96.5	102.3	84.3	98.2	100.0	96.2	110.9	104.6	97.1	110.0
Jan., 1893..	104.7	94.1	102.3	98.3	98.2	100.0	99.7	140.5	114.6	100.4	167.1
Apr., 1893..	104.7	101.3	102.3	84.3	98.2	100.0	96.2	135.6	115.9	100.4	87.7
July, 1893..	100.9	96.5	92.0	84.3	98.2	100.0	93.6	98.6	86.9	101.8	81.2
Oct., 1893..	100.9	91.7	92.0	84.3	98.2	100.0	93.6	130.7	112.1	104.5	115.2
Jan., 1894..	100.9	85.7	102.3	84.3	98.2	100.0	96.2	125.7	115.9	105.8	120.5
Apr., 1894..	97.0	80.8	102.3	84.3	98.2	100.0	96.2	96.1	122.2	103.1	57.6
July, 1894..	97.0	94.1	102.3	84.3	98.2	100.0	96.2	83.8	85.7	100.4	66.8
Oct., 1894..	97.0	83.2	92.0	84.3	81.8	91.7	87.5	110.9	110.9	100.4	99.5
Jan., 1895..	97.0	82.0	81.8	84.3	90.0	91.7	87.0	110.9	114.6	96.4	120.5
Apr., 1895..	97.0	106.2	89.8	84.3	90.0	91.7	89.0	88.8	114.6	103.1	70.7
July, 1895..	89.2	103.8	89.8	98.3	90.0	100.0	94.5	81.4	84.4	96.4	65.5
Oct., 1895..	89.2	72.4	89.8	84.3	90.0	91.7	89.0	88.8	88.2	100.4	90.3
Jan., 1896..	89.2	62.7	81.8	84.3	90.0	91.7	87.0	106.0	103.8	96.1	112.6
Apr., 1896..	89.2	55.5	89.8	84.3	81.8	91.7	86.9	91.2	96.7	93.8	60.2
July, 1896..	85.3	49.5	92.0	84.3	81.8	91.7	87.5	70.3	73.1	88.4	61.5
Oct., 1896..	85.3	56.7	81.8	84.3	81.8	91.7	84.9	71.5	83.2	79.0	90.8
Jan., 1897..	85.3	45.8	102.3	84.3	98.2	100.0	96.2	88.8	109.6	76.3	96.9
Apr., 1897..	85.3	41.0	92.0	84.3	90.0	91.7	89.5	96.1	123.5	64.3	52.4
July, 1897..	85.3	41.0	81.8	84.3	81.8	91.7	84.9	71.5	73.1	64.3	55.0
Oct., 1897..	85.3	53.1	81.8	84.3	90.0	91.7	87.0	93.7	93.2	53.6	87.7
Jan., 1898..	77.6	54.3	81.8	84.3	81.8	91.7	84.9	98.6	93.2	42.9	117.8
Apr., 1898..	77.6	51.9	112.5	98.3	98.2	91.7	100.2	101.1	83.1	38.8	52.4
July, 1898..	77.6	56.7	112.5	112.4	98.2	108.3	107.9	78.9	74.3	41.5	64.2
Oct., 1898..	77.6	60.3	92.0	101.1	98.2	100.0	97.8	91.2	93.2	40.8	87.7
Jan., 1899..	77.6	61.5	92.0	101.1	98.2	100.0	97.8	87.5	109.6	41.5	96.9
Apr., 1899..	85.3	65.1	92.0	101.1	98.2	100.0	97.8	94.9	124.7	38.2	68.1
July, 1899..	85.3	64.5	92.0	101.1	98.2	100.0	97.8	87.5	86.9	36.2	75.9

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

FOOD—Continued.

Date.	Fish.			Flour, ryc.	Flour, wheat.	Fruit.					Land, prime, steam.
	Cod, en- tirely boned.	Mack- erel, salt, xxxx, No. 2.	Aver- age.			Apples, evap- orated.	Cur- rants, new, in barrels.	Prunes, California, in boxes, 60s to 70s.	Rai- sins, Califor- nia, London layer, new.	Aver- age.	
Jan., 1890..	96.0	103.7	99.9	79.0	92.7	73.7	109.7	73.8	117.9	93.8	92.6
Apr., 1890..	96.0	103.7	99.9	71.7	101.1	99.8	113.9	121.0	120.5	113.8	98.9
July, 1890..	96.0	99.0	97.5	74.2	101.1	84.6	112.5	121.0	117.9	109.0	92.0
Oct., 1890..	100.0	108.4	104.2	94.8	104.5	138.8	108.8	121.0	114.1	120.6	102.2
Jan., 1891..	100.0	103.7	101.9	104.6	98.6	130.1	90.0	117.3	105.1	110.6	94.4
Apr., 1891..	104.0	103.7	103.9	122.8	106.2	130.1	106.9	107.7	103.8	112.1	107.3
July, 1891..	100.0	94.2	97.1	114.3	101.1	112.8	94.2	84.7	74.4	91.5	102.2
Oct., 1891..	104.0	89.5	96.8	122.8	100.3	69.4	87.2	71.4	74.4	75.6	113.5
Jan., 1892..	104.0	94.2	99.1	115.9	94.4	60.7	77.3	82.3	71.8	73.0	96.9
Apr., 1892..	104.0	113.1	108.6	102.7	86.0	52.0	60.5	80.4	71.8	66.2	100.3
July, 1892..	88.0	113.1	100.6	93.4	86.0	52.0	61.9	78.6	64.1	64.2	114.9
Oct., 1892..	88.0	84.8	86.4	83.9	84.3	69.4	71.7	99.8	73.1	78.5	131.8
Jan., 1893..	88.0	94.2	91.1	79.3	84.3	78.1	80.2	121.0	88.5	92.0	164.6
Apr., 1893..	88.0	99.0	93.5	77.6	81.7	93.3	74.5	118.5	96.2	95.6	161.5
July, 1893..	88.0	99.0	93.5	78.5	80.1	75.9	60.5	104.0	88.5	82.2	154.3
Oct., 1893..	88.0	89.5	88.8	80.5	80.9	38.9	46.4	87.7	80.8	78.0	161.5
Jan., 1894..	88.0	84.8	86.4	68.6	74.2	99.8	36.6	71.4	64.1	68.0	129.8
Apr., 1894..	80.0	70.7	75.4	71.0	71.6	95.4	29.5	58.1	50.0	58.3	112.0
July, 1894..	80.0	61.3	70.7	71.7	73.3	121.4	45.0	72.6	55.1	73.5	107.9
Oct., 1894..	88.0	75.4	81.7	69.1	69.9	69.4	47.8	70.2	53.8	60.3	130.8
Jan., 1895..	88.0	84.8	86.4	72.7	70.8	65.1	53.4	75.0	75.6	67.3	109.6
Apr., 1895..	88.0	99.0	93.5	97.3	69.1	68.3	77.3	69.0	76.9	72.9	112.8
July, 1895..	72.0	91.9	82.0	77.6	81.7	60.7	43.6	58.1	73.1	58.9	103.8
Oct., 1895..	72.0	101.3	86.7	65.6	72.5	62.3	50.6	61.7	78.2	63.2	94.0
Jan., 1896..	76.0	108.4	92.2	65.6	71.6	64.0	63.3	61.7	55.1	61.0	85.9
Apr., 1896..	76.0	103.7	89.9	65.6	74.2	55.3	63.3	50.8	43.6	53.3	80.9
July, 1896..	76.0	84.8	80.4	71.1	74.2	54.2	71.7	52.0	51.3	57.3	59.7
Oct., 1896..	76.0	75.4	75.7	75.6	75.8	46.1	88.6	46.0	57.7	59.6	65.4
Jan., 1897..	76.0	70.7	73.4	66.4	90.2	38.0	84.4	56.9	75.6	63.7	60.1
Apr., 1897..	76.0	51.8	63.9	59.6	81.7	39.0	90.0	50.8	69.2	62.3	65.0
July, 1897..	76.0	51.8	63.9	73.4	78.4	39.0	113.9	42.3	70.5	66.4	63.4
Oct., 1897..	80.0	82.5	81.3	74.9	96.9	73.7	130.8	62.9	71.8	84.8	71.1
Jan., 1898..	80.0	87.2	83.6	72.9	94.4	75.9	146.3	49.6	71.8	85.9	75.6
Apr., 1898..	80.0	89.5	84.8	85.1	96.9	75.9	140.6	49.6	67.9	83.5	84.2
July, 1898..	80.0	84.8	82.4	68.9	90.2	83.5	133.6	50.8	69.2	84.3	81.8
Oct., 1898..	80.0	99.0	89.5	78.5	78.4	73.7	116.7	55.6	75.6	80.4	74.4
Jan., 1899..	80.0	101.3	90.7	83.2	72.5	78.1	105.5	56.9	65.4	76.5	88.3
Apr., 1899..	88.0	101.3	94.7	80.2	75.8	84.6	98.4	56.9	55.1	73.8	83.0
July, 1899..	80.0	101.3	90.7	79.8	75.8	80.2	99.8	53.2	59.0	73.1	80.5

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

FOOD—Continued.

Date.	Meal, corn yellow, kiln dried.	Meat.									
		• Beef on the hoof.				Beef.			Salt meat.		
		Good, 1,200 to 1,350 pound beeves.	Choice, 1,350 to 1,500 pound beeves.	1,200 to 1,500 pound beeves.	Average.	Loins.	Ribs.	Average.	Beef, salt, family.	Pork, salt, mess, old to new.	Average.
Jan., 1890..	82.0	90.4	92.2	93.9	92.2	97.7	97.3	97.5	97.4	93.1	93.8
Apr., 1890..	75.8	98.7	97.0	102.1	99.3	97.7	97.3	97.5	85.2	101.1	93.2
July, 1890..	75.8	95.7	92.2	97.4	95.1	97.7	97.3	97.5	86.9	118.7	102.8
Oct., 1890..	99.0	91.0	90.7	92.8	91.5	97.7	97.3	97.5	104.9	103.3	104.1
Jan., 1891..	100.5	99.5	100.6	100.9	100.3	97.7	97.3	97.5	92.5	96.7	94.6
Apr., 1891..	116.0	120.0	115.3	116.0	117.1	102.9	103.4	103.2	102.2	109.9	106.1
July, 1891..	116.0	117.3	116.6	106.7	113.5	102.9	103.4	103.2	129.0	96.7	112.9
Oct., 1891..	125.3	96.2	100.4	95.1	97.2	102.9	103.4	103.2	107.1	100.0	103.6
Jan., 1892..	109.8	91.0	94.9	95.1	93.7	102.9	103.4	103.2	94.9	83.5	89.2
Apr., 1892..	91.2	94.6	88.6	93.9	92.3	97.7	97.3	97.5	103.4	85.7	94.6
July, 1892..	97.4	109.2	105.6	100.9	105.2	97.7	97.3	97.5	100.5	101.1	100.8
Oct., 1892..	95.9	96.3	95.4	99.7	97.1	97.7	97.3	97.5	90.1	104.4	97.3
Jan., 1893..	88.1	105.7	105.0	112.5	107.7	97.7	97.3	97.5	119.3	139.6	129.5
Apr., 1893..	83.5	113.4	110.3	116.0	113.2	108.0	103.4	105.7	119.3	160.4	139.9
July, 1893..	83.5	101.0	94.4	98.6	98.0	108.0	103.4	105.7	107.1	169.2	138.2
Oct., 1893..	86.6	102.2	98.6	103.2	101.3	108.0	103.4	105.7	126.6	159.3	143.0
Jan., 1894..	83.5	95.1	92.8	97.4	95.1	113.1	109.5	111.3	143.6	124.2	133.9
Apr., 1894..	82.0	92.8	86.4	96.3	91.8	108.0	103.4	105.7	126.6	115.4	121.0
July, 1894..	86.6	92.8	91.7	93.9	92.8	102.9	97.3	100.1	99.8	122.0	110.9
Oct., 1894..	95.9	106.9	105.5	111.3	107.9	108.0	103.4	105.7	107.1	133.0	120.1
Jan., 1895..	89.7	99.3	94.9	99.7	98.0	108.0	103.4	105.7	112.0	114.3	113.2
Apr., 1895..	80.4	123.3	119.8	127.6	123.6	113.1	109.5	111.3	113.2	120.9	117.1
July, 1895..	88.1	108.1	105.0	111.3	108.1	108.0	103.4	105.7	116.8	119.8	118.3
Oct., 1895..	78.9	102.2	95.4	99.7	99.1	113.1	109.5	111.3	107.1	90.1	98.6
Jan., 1896..	69.6	94.0	88.0	92.8	91.6	108.0	103.4	105.7	107.1	80.2	93.7
Apr., 1896..	66.5	88.1	84.3	88.1	86.8	102.9	103.4	103.2	107.1	80.2	93.7
July, 1896..	63.4	91.6	85.4	95.1	90.7	102.9	97.3	100.1	85.2	71.4	78.3
Oct., 1896..	63.4	99.3	91.7	102.1	97.7	108.0	103.4	105.7	82.7	72.5	77.6
Jan., 1897..	61.9	106.3	98.6	103.2	102.7	108.0	103.4	105.7	90.1	74.7	82.4
Apr., 1897..	52.6	106.9	100.2	105.5	104.2	108.0	103.4	105.7	93.7	81.3	87.5
July, 1897..	54.1	103.4	97.5	105.5	102.1	108.0	103.4	105.7	87.6	74.7	81.2
Oct., 1897..	55.7	109.8	99.1	110.2	106.4	108.0	103.4	105.7	93.0	83.5	88.3
Jan., 1898..	61.9	108.1	99.7	110.2	106.0	102.9	97.3	100.1	80.3	79.1	79.7
Apr., 1898..	63.4	116.3	101.3	107.9	108.5	102.9	97.3	100.1	94.9	84.6	89.8
July, 1898..	66.5	115.1	104.4	113.7	111.1	102.9	97.3	100.1	99.8	90.1	96.0
Oct., 1898..	63.4	114.5	106.6	117.1	112.8	108.0	103.4	105.7	77.9	75.8	76.9
Jan., 1899..	66.5	118.6	112.4	124.1	118.4	108.0	103.4	105.7	85.2	87.9	86.6
Apr., 1899..	64.9	115.1	107.6	117.1	113.3	108.0	103.4	105.7	87.6	81.3	84.5
July, 1899..	66.5	123.3	114.0	125.3	120.9	108.0	103.4	105.7	87.6	78.0	82.8

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

FOOD—Continued.

Date.	Meat.			Milk, fresh.	Molasses.			Rice, Carolina, good.
	Bacon, short rib sides.	Ham, sugar cured.	Mutton, racks and saddles.		New Orleans, prime.	Puerto Rico, best.	Average.	
January, 1890.....	89.5	100.5	104.7	105.5	115.6	113.5	114.6	94.0
April, 1890.....	93.5	104.2	104.7	93.8	110.1	102.7	106.4	96.3
July, 1890.....	87.9	103.0	104.7	93.8	110.1	102.7	106.4	103.1
October, 1890.....	96.0	105.4	104.7	105.5	104.6	102.7	103.7	105.7
January, 1891.....	91.7	92.0	94.2	105.5	99.1	97.3	98.2	105.7
April, 1891.....	104.2	94.4	94.2	93.8	82.6	94.0	88.6	101.0
July, 1891.....	106.2	103.0	104.7	93.8	88.1	94.6	91.4	105.7
October, 1891.....	131.0	107.9	94.2	105.5	88.1	94.6	91.4	98.7
January, 1892.....	100.2	89.5	94.2	102.6	101.8	97.3	99.6	89.3
April, 1892.....	99.2	96.9	99.4	88.0	93.6	91.9	92.8	86.9
July, 1892.....	133.1	120.2	115.1	88.0	90.8	89.2	90.0	86.9
October, 1892.....	139.8	106.7	104.7	102.6	88.1	86.5	87.3	79.9
January, 1893.....	148.8	120.2	83.7	102.6	99.1	94.6	96.9	70.5
April, 1893.....	165.6	138.6	83.7	88.0	96.3	91.9	94.1	68.1
July, 1893.....	161.7	122.6	94.2	88.0	90.8	91.9	91.4	51.7
October, 1893.....	182.5	122.6	78.5	102.6	85.3	86.5	85.9	62.3
January, 1894.....	107.1	93.2	68.0	102.6	96.3	102.7	99.5	72.8
April, 1894.....	109.1	94.4	68.0	88.0	85.3	100.0	92.7	82.2
July, 1894.....	117.1	109.1	78.5	88.0	82.6	100.0	91.3	84.6
October, 1894.....	127.0	116.5	68.0	102.6	79.8	97.3	88.6	82.2
January, 1895.....	103.2	92.0	52.3	102.6	90.8	105.4	98.1	77.5
April, 1895.....	107.1	95.6	83.7	88.0	85.3	100.0	92.7	75.2
July, 1895.....	109.1	101.8	73.3	88.0	79.8	97.3	88.6	84.6
October, 1895.....	99.2	99.3	73.3	102.6	82.6	91.9	87.3	75.2
January, 1896.....	81.3	96.9	62.8	96.7	93.6	97.3	95.5	72.8
April, 1896.....	83.3	96.9	62.8	88.0	90.8	94.6	92.7	70.5
July, 1896.....	69.4	96.9	68.0	88.0	88.1	91.9	90.0	75.2
October, 1896.....	63.5	103.0	78.3	96.7	85.3	91.9	88.6	79.9
January, 1897.....	68.5	99.3	57.6	96.7	79.8	91.9	85.9	77.5
April, 1897.....	83.3	100.5	73.3	88.0	79.8	89.2	84.5	84.6
July, 1897.....	81.3	100.5	73.3	88.0	77.1	83.8	80.5	89.3
October, 1897.....	97.2	95.6	68.0	96.7	77.1	81.1	79.1	86.9
January, 1898.....	79.4	87.1	73.3	96.7	88.1	91.9	90.0	86.9
April, 1898.....	88.9	83.4	78.5	88.0	82.6	89.2	85.9	94.0
July, 1898.....	95.2	87.1	78.5	88.0	90.8	89.2	90.0	112.8
October, 1898.....	97.2	85.8	78.5	96.7	96.3	86.5	91.4	96.3
January, 1899.....	85.3	84.6	78.5	96.7	96.3	97.3	96.8	98.7
April, 1899.....	82.5	84.6	78.5	88.0	99.1	97.3	98.2	108.1
July, 1899.....	82.5	101.8	78.5	88.0	99.1	100.0	99.6	105.7

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

FOOD—Concluded.

Date.	Salt.			Spices, nutmegs, 110 nuts per pound.	Spices, pepper, whole, Sumatra.	Starch, corn.	Sugar.				Tallow.
	Fine, bolted.	Turks Island.	Average.				Centrifugal, 96-degree test.	Fair refining, 89-degree test.	Granulated.	Average.	
Jan., 1890..	100.0	88.5	94.3	100.5	137.6	94.3	110.3	120.2	120.6	117.0	94.0
Apr., 1890..	100.0	100.0	100.0	102.2	128.6	94.3	102.0	118.7	112.5	111.1	94.7
July, 1890..	100.0	111.5	105.8	105.4	115.6	94.3	102.0	117.1	116.0	111.7	94.0
Oct., 1890..	100.0	88.5	94.3	102.2	99.1	102.2	114.0	132.5	122.9	123.1	106.0
Jan., 1891..	100.0	96.2	98.1	102.2	93.6	110.0	128.5	112.5	110.2	117.1	96.0
Apr., 1891..	100.0	107.7	103.9	97.3	93.6	102.2	90.6	78.6	83.5	84.2	107.3
July, 1891..	100.0	107.7	103.9	97.3	82.6	102.2	82.8	74.0	78.8	78.5	100.0
Oct., 1891..	100.0	100.0	100.0	97.3	79.8	102.2	84.4	70.9	81.2	78.8	106.0
Jan., 1892..	100.0	100.0	100.0	95.7	71.6	98.3	84.4	75.6	75.0	78.3	102.0
Apr., 1892..	100.0	96.2	98.1	84.3	74.3	98.3	78.1	67.8	79.4	75.1	99.3
July, 1892..	100.0	103.8	101.9	82.7	68.8	98.3	78.1	67.8	78.3	74.7	92.7
Oct., 1892..	100.0	115.4	107.7	81.1	74.3	98.3	87.5	74.0	90.9	84.1	95.4
Jan., 1893..	100.0	96.2	98.1	77.8	71.6	98.3	86.0	74.0	85.3	81.8	111.3
Apr., 1893..	100.0	100.0	100.0	76.2	60.6	98.3	93.8	80.1	89.8	87.9	116.6
July, 1893..	100.0	92.3	96.2	71.3	52.3	98.3	84.4	92.5	97.8	91.6	99.3
Oct., 1893..	100.0	88.5	94.3	69.7	55.0	98.3	96.9	83.2	94.4	91.5	111.3
Jan., 1894..	100.0	88.5	94.3	68.1	55.0	98.3	71.9	64.7	69.4	68.7	107.9
Apr., 1894..	100.0	96.2	98.1	63.2	52.3	98.3	71.9	61.6	73.8	69.1	101.3
July, 1894..	100.0	88.5	94.3	60.0	49.5	102.2	78.1	66.3	73.8	72.7	90.7
Oct., 1894..	100.0	80.8	90.4	64.9	52.3	102.2	93.8	77.1	81.8	84.2	103.8
Jan., 1895..	100.0	103.8	101.9	64.9	44.0	98.3	75.0	67.8	69.4	70.7	100.7
Apr., 1895..	100.0	80.8	90.4	64.9	46.8	98.3	75.0	66.3	71.6	71.0	100.7
July, 1895..	100.0	80.8	90.4	64.9	52.3	98.3	81.3	70.9	80.7	77.6	92.7
Oct., 1895..	100.0	80.8	90.4	64.9	49.5	98.3	89.1	77.1	81.8	82.7	92.7
Jan., 1896..	100.0	80.8	90.4	63.2	46.8	98.3	93.8	83.2	85.2	87.4	79.5
Apr., 1896..	100.0	80.8	90.4	56.8	49.5	94.3	104.7	92.5	90.7	96.0	77.5
July, 1896..	100.0	84.6	92.3	55.1	52.3	94.3	87.5	74.0	85.3	82.3	68.9
Oct., 1896..	100.0	88.5	94.3	53.5	52.3	94.3	76.6	66.3	78.5	73.8	79.5
Jan., 1897..	100.0	76.9	88.5	51.9	55.0	94.3	79.7	69.3	76.1	75.0	72.2
Apr., 1897..	100.0	80.8	90.4	51.9	52.3	94.3	84.4	74.0	82.9	80.4	71.5
July, 1897..	100.0	80.8	90.4	55.1	63.3	94.3	87.5	74.0	82.9	81.5	66.2
Oct., 1897..	100.0	84.6	92.3	53.5	79.8	94.3	98.4	81.7	89.8	90.0	74.2
Jan., 1898..	100.0	76.9	88.5	51.9	82.6	94.3	106.3	89.4	92.0	95.9	78.1
Apr., 1898..	100.0	80.8	90.4	55.1	90.8	94.3	103.1	89.4	89.8	94.1	76.8
July, 1898..	100.0	80.8	90.4	51.9	96.3	94.3	106.3	89.4	94.4	96.7	66.2
Oct., 1898..	100.0	84.6	92.3	47.0	99.1	94.3	106.3	92.5	92.0	96.9	74.2
Jan., 1899..	100.0	88.5	94.3	48.6	110.1	94.3	107.8	94.0	87.6	96.5	79.5
Apr., 1899..	100.0	92.3	96.2	43.8	115.6	94.3	110.9	97.1	89.8	99.3	99.3
July, 1899..	100.0	80.8	90.4	43.8	115.6	94.3	112.5	98.6	96.7	102.6	92.1

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

CLOTHS AND CLOTHING.

Date.	Bags, 2-bushel, Amos- keag.	Boots and shoes.				Average.	Calico, Cocheco prints.
		Women's shoes, solid leather, grain, polish or polka.	Men's brogans.	Men's calf, bal. shoes, Goodyear welt, dongola top.	Men's split boots, kip top, 16-inch, double sole.		
January, 1890	100.0	100.0	100.0	100.0	100.0	100.0	105.4
April, 1890	100.0	100.0	100.0	100.0	100.0	100.0	105.4
July, 1890	101.6	100.0	100.0	100.0	100.0	100.0	105.4
October, 1890	103.2	100.0	100.0	100.0	100.0	100.0	105.4
January, 1891	100.0	100.0	100.0	100.0	100.0	100.0	97.3
April, 1891	98.4	100.0	100.0	100.0	100.0	100.0	81.1
July, 1891	98.4	100.0	100.0	100.0	100.0	100.0	97.3
October, 1891	100.0	100.0	100.0	100.0	100.0	100.0	97.3
January, 1892	98.4	100.0	100.0	100.0	100.0	100.0	105.4
April, 1892	98.4	100.0	100.0	100.0	100.0	100.0	105.4
July, 1892	98.4	100.0	97.6	100.0	100.0	99.4	105.4
October, 1892	98.4	100.0	97.6	100.0	100.0	99.4	105.4
January, 1893	98.4	100.0	97.6	100.0	97.1	98.7	105.4
April, 1893	98.4	100.0	97.6	100.0	97.1	98.7	105.4
July, 1893	98.4	100.0	95.2	100.0	97.1	98.1	97.3
October, 1893	84.1	100.0	95.2	100.0	97.1	98.1	97.3
January, 1894	85.7	100.0	95.2	100.0	94.1	97.3	89.2
April, 1894	85.7	100.0	95.2	100.0	94.1	97.3	89.2
July, 1894	74.6	100.0	90.5	100.0	94.1	96.2	89.2
October, 1894	77.8	100.0	88.1	100.0	94.1	95.6	89.2
January, 1895	66.7	100.0	88.1	100.0	88.2	94.1	81.1
April, 1895	69.8	100.0	90.5	100.0	88.2	94.7	81.1
July, 1895	73.0	100.0	100.0	100.0	88.2	97.1	89.2
October, 1895	82.5	100.0	95.2	100.0	88.2	95.9	89.2
January, 1896	85.7	100.0	95.2	100.0	91.2	96.6	89.2
April, 1896	77.8	100.0	95.2	100.0	91.2	96.6	89.2
July, 1896	79.4	100.0	95.2	100.0	91.2	96.6	81.1
October, 1896	82.5	100.0	92.9	100.0	91.2	96.0	81.1
January, 1897	82.5	100.0	90.5	100.0	94.1	96.2	81.1
April, 1897	82.5	100.0	90.5	100.0	94.1	96.2	81.1
July, 1897	79.4	100.0	90.5	100.0	94.1	96.2	81.1
October, 1897	85.7	100.0	90.5	100.0	94.1	96.2	81.1
January, 1898	79.4	100.0	85.7	100.0	97.1	95.7	73.0
April, 1898	79.4	100.0	85.7	100.0	97.1	95.7	73.0
July, 1898	88.9	100.0	88.1	93.3	97.1	94.6	73.0
October, 1898	92.1	100.0	88.1	93.3	97.1	94.6	73.0
January, 1899	88.9	100.0	88.1	93.3	100.0	95.4	73.0
April, 1899	92.1	100.0	88.1	93.3	100.0	95.4	73.0
July, 1899	92.1	100.0	90.5	93.3	100.0	96.0	81.1

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

CLOTHS AND CLOTHING—Continued.

Date.	Carpets.				Cotton thread, 6-cord, 200 yards, J. & P. Coats.	Cotton, upland, mid-ling.	Denims, Amos-keag.	Drillings, Stark A.
	Brussels, 5-frame, Bigelow.	Ingrain, 2-ply, Lowell.	Wilton, 5-frame, Bigelow.	Average.				
January, 1890.....	95.1	102.0	97.8	98.3	101.4	106.0	101.7	100.3
April, 1890.....	95.1	92.8	97.8	95.2	101.4	118.2	101.7	102.6
July, 1890.....	95.1	96.7	97.8	96.5	99.6	124.0	99.5	109.6
October, 1890.....	95.1	97.3	97.8	96.7	99.6	107.3	103.8	105.9
January, 1891.....	103.9	106.6	102.7	104.4	99.6	96.3	101.7	105.1
April, 1891.....	103.9	103.3	102.7	103.3	99.6	93.0	99.5	100.2
July, 1891.....	103.9	106.7	102.7	104.4	99.6	86.6	97.4	96.9
October, 1891.....	103.9	97.9	102.7	101.5	99.6	89.8	97.4	88.6
January, 1892.....	103.9	96.7	97.8	99.5	99.6	78.8	97.4	90.2
April, 1892.....	95.1	96.3	97.8	96.4	99.6	69.1	99.5	86.8
July, 1892.....	90.7	96.7	97.8	95.1	99.6	76.2	99.5	86.3
October, 1892.....	90.7	97.8	97.8	95.4	99.6	79.5	99.5	84.3
January, 1893.....	90.7	101.6	97.8	96.7	99.6	102.1	99.5	91.4
April, 1893.....	90.7	100.1	97.8	96.2	99.6	87.9	99.5	94.3
July, 1893.....	90.7	101.9	97.8	96.8	99.6	82.7	103.8	97.1
October, 1893.....	90.7	93.4	97.8	94.0	99.6	83.3	103.8	89.2
January, 1894.....	86.2	92.2	97.8	92.1	99.6	82.1	95.2	86.6
April, 1894.....	86.2	89.1	97.8	91.0	99.6	80.1	95.2	81.2
July, 1894.....	86.2	87.3	97.8	90.4	99.6	74.9	95.2	78.8
October, 1894.....	86.2	79.0	97.8	87.7	99.6	64.6	95.2	80.1
January, 1895.....	86.2	82.7	85.6	84.8	99.0	58.8	86.5	76.8
April, 1895.....	86.2	78.4	85.6	83.4	99.6	66.5	84.4	75.9
July, 1895.....	86.2	78.9	85.6	83.6	99.6	73.7	84.4	73.4
October, 1895.....	86.2	73.5	85.6	81.8	99.6	93.7	86.5	91.2
January, 1896.....	86.2	78.3	85.6	83.4	99.6	85.9	90.9	87.8
April, 1896.....	86.2	73.6	85.6	81.8	99.6	81.4	82.2	85.5
July, 1896.....	86.2	79.3	85.6	83.7	97.3	76.9	82.2	84.8
October, 1896.....	86.2	72.9	85.6	81.6	97.3	86.6	86.5	83.2
January, 1897.....	86.2	78.7	85.6	83.5	97.3	72.4	86.5	78.8
April, 1897.....	86.2	76.0	85.6	82.6	97.3	75.6	80.0	76.5
July, 1897.....	90.7	82.8	90.5	86.0	97.3	81.4	77.9	74.4
October, 1897.....	90.7	86.3	90.5	89.2	97.3	67.2	77.9	78.6
January, 1898.....	95.1	95.0	92.9	94.3	97.3	61.4	77.9	67.9
April, 1898.....	95.1	88.4	92.9	92.1	97.3	64.0	77.9	72.3
July, 1898.....	95.1	92.9	92.9	93.6	97.3	64.6	77.9	72.6
October, 1898.....	95.1	78.5	92.9	88.8	97.3	55.6	76.8	68.8
January, 1899.....	95.1	80.2	92.9	89.4	97.3	60.7	71.4	69.3
April, 1899.....	95.1	76.9	92.9	88.3	97.3	64.6	77.9	73.9
July, 1899.....	95.1	82.5	92.9	90.2	97.3	63.3	80.0	75.9

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

CLOTHS AND CLOTHING—Continued.

Date.	Felts.			Flannels, twilled blue, 3-4, Tail- bot T.	Ging- hams, Amos- keag.	Leather.			
	Press, 12 by 54 feet, fine Four- dins.	Wet, 24 by 54 feet, fine Four- dins.	Aver- age.			Harn- ess.	Hides, dry, Buenos Ayres.	Sole, first quality, medium weight, Buenos Ayres.	Aver- age.
January, 1890.....	107.0	100.5	103.8	102.9	97.8	101.1	103.2	101.7	102.0
April, 1890.....	107.0	100.5	103.8	108.4	97.8	97.8	103.2	101.7	100.9
July, 1890.....	107.0	100.5	103.8	86.7	97.8	97.8	108.2	101.7	100.9
October, 1890.....	107.0	100.5	103.8	180.2	97.8	104.5	103.2	101.7	103.1
January, 1891.....	94.4	99.6	97.0	100.2	101.7	101.1	96.0	99.1	99.4
April, 1891.....	94.4	99.6	97.0	100.2	101.7	104.5	96.0	99.1	100.5
July, 1891.....	94.4	99.6	97.0	100.2	101.7	94.4	98.0	99.1	97.2
October, 1891.....	94.4	99.6	97.0	100.2	101.7	97.8	96.0	99.1	98.3
January, 1892.....	94.4	99.6	97.0	100.8	101.7	101.1	95.0	96.4	97.5
April, 1892.....	94.4	99.6	97.0	100.8	101.7	97.8	93.2	98.7	94.9
July, 1892.....	94.4	99.6	97.0	100.8	101.7	91.0	89.5	96.4	92.3
October, 1892.....	94.4	99.6	97.0	100.8	101.7	87.6	93.2	96.4	92.4
January, 1893.....	94.4	99.6	97.0	93.0	101.7	84.3	93.2	93.7	90.4
April, 1893.....	94.4	99.6	97.0	100.8	97.8	84.3	91.4	101.7	92.5
July, 1893.....	94.4	99.6	97.0	100.8	97.8	84.3	84.1	101.7	90.0
October, 1893.....	94.4	99.6	97.0	100.8	97.8	80.9	80.4	101.7	87.7
January, 1894.....	94.4	99.6	97.0	93.0	80.2	80.9	76.8	99.0	85.6
April, 1894.....	94.4	99.6	97.0	83.3	74.3	80.9	80.4	99.0	86.8
July, 1894.....	94.4	99.6	97.0	83.3	74.3	80.9	76.8	91.0	82.9
October, 1894.....	86.6	89.5	88.1	83.3	74.3	84.3	76.8	88.3	83.1
January, 1895.....	86.6	89.5	88.1	80.3	72.4	84.3	87.7	88.3	86.8
April, 1895.....	86.6	89.5	88.1	75.5	66.5	86.0	98.7	91.0	91.9
July, 1895.....	86.6	89.5	88.1	76.7	74.3	97.8	153.5	123.1	124.8
October, 1895.....	86.6	89.5	88.1	76.7	78.3	101.1	175.4	128.5	135.0
January, 1896.....	86.6	89.5	88.1	70.4	80.2	104.5	131.6	117.8	118.0
April, 1896.....	86.6	89.5	88.1	71.5	74.3	101.1	124.8	96.4	107.3
July, 1896.....	86.6	89.5	88.1	71.5	66.5	97.8	117.0	99.0	104.6
October, 1896.....	86.6	89.5	88.1	71.5	74.3	101.1	117.0	99.0	105.7
January, 1897.....	86.6	89.5	88.1	72.8	70.4	107.9	131.6	107.1	115.5
April, 1897.....	86.6	89.5	88.1	72.8	66.5	111.2	135.2	117.8	121.4
July, 1897.....	86.6	89.5	88.1	72.8	66.5	114.6	135.2	107.1	119.0
October, 1897.....	86.6	89.5	88.1	80.9	70.4	107.9	146.2	117.8	124.0
January, 1898.....	86.6	89.5	88.1	80.9	66.5	97.8	146.2	112.4	118.8
April, 1898.....	86.6	89.5	88.1	80.9	70.4	101.1	146.2	112.4	119.9
July, 1898.....	86.6	89.5	88.1	80.9	66.5	104.5	153.5	112.4	121.0
October, 1898.....	86.6	89.5	88.1	84.1	66.5	104.5	146.2	107.1	121.7
January, 1899.....	86.6	89.5	88.1	84.1	70.4	101.1	146.2	112.4	119.9
April, 1899.....	86.6	89.5	88.1	77.6	74.3	104.5	135.9	117.8	120.4
July, 1899.....	86.6	89.5	88.1	77.6	73.3	111.2	153.5	117.8	127.5

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

CLOTHS AND CLOTHING—Continued.

Date.	Print cloths, 28-inch, 64 by 64, Metacomet.	Shawls, standard, 72 by 144 inches, weighing 42 ounces, made of XX Ohio fleece wool.	Sheetings.			Shirtings, bleached.				
			Brown, 4-4, Atlantic.	36-inch, Stark A.A.	Average.	4-4, Fruit of the Loom.	4-4, Hope.	4-4, Lonsdale.	4-4, New York Mills.	Average.
January, 1890...	110.8	100.8	101.0	105.0	103.0	100.2	100.7	100.6	100.3	100.5
April, 1890.....	102.9	100.8	101.0	101.3	101.2	100.2	100.7	100.6	100.3	100.5
July, 1890.....	106.8	100.8	101.0	108.2	104.6	103.1	104.1	103.5	102.6	103.3
October, 1890...	104.8	100.8	104.8	107.5	106.2	103.1	104.1	103.5	102.6	103.3
January, 1891...	94.9	99.7	103.6	106.1	104.9	100.2	100.7	97.8	102.6	100.3
April, 1891.....	94.9	99.7	102.1	98.7	100.4	100.2	100.7	100.6	100.3	100.5
July, 1891.....	93.0	99.7	100.6	95.3	98.0	97.7	97.5	97.8	97.9	97.7
October, 1891...	94.9	99.7	96.0	86.8	91.4	100.2	97.5	97.8	97.9	98.4
January, 1892...	96.9	99.7	90.1	90.9	90.5	94.9	94.1	97.8	95.5	95.6
April, 1892.....	96.9	99.7	92.0	87.8	89.9	94.9	94.1	97.8	95.5	95.6
July, 1892.....	106.8	99.7	88.4	85.7	87.1	95.4	90.7	97.8	95.5	94.9
October, 1892...	110.8	99.7	85.3	82.7	84.0	95.4	94.1	97.8	95.5	95.7
January, 1893...	126.6	99.7	89.9	94.7	92.3	101.0	100.8	103.5	95.5	100.2
April, 1893.....	122.6	99.7	85.3	90.4	87.9	101.0	100.8	103.5	95.5	100.2
July, 1893.....	102.9	99.7	95.2	87.5	91.4	95.4	94.1	97.8	93.0	95.1
October, 1893...	87.0	99.7	93.3	88.0	90.7	95.4	94.1	97.8	88.6	94.0
January, 1894...	93.0	93.1	91.4	84.9	88.2	88.9	89.4	89.7	88.6	89.2
April, 1894.....	89.0	93.1	85.7	80.4	83.1	85.7	87.4	89.1	88.6	87.7
July, 1894.....	85.1	93.1	85.7	79.0	82.4	87.0	87.4	89.1	88.6	88.0
October, 1894...	94.9	93.1	78.1	80.7	79.4	84.2	87.4	86.3	88.6	86.6
January, 1895...	85.1	78.1	76.1	85.9	81.0	84.2	77.2	74.8	88.6	81.2
April, 1895.....	79.1	78.1	76.1	74.2	75.2	76.8	77.2	77.6	84.2	79.0
July, 1895.....	91.0	78.1	76.1	75.0	75.6	78.6	84.0	83.4	84.2	82.6
October, 1895...	102.9	78.1	87.6	90.9	89.3	89.8	97.5	94.9	84.2	91.6
January, 1896...	93.0	80.3	87.6	87.0	87.3	95.4	100.8	97.8	88.6	95.7
April, 1896.....	79.1	80.3	83.8	84.3	84.1	87.0	84.0	80.5	88.6	85.0
July, 1896.....	79.0	80.3	80.0	83.3	81.7	73.9	80.6	74.8	88.6	79.5
October, 1896...	81.2	80.3	80.0	81.4	80.7	76.8	87.4	80.5	88.6	83.3
January, 1897...	79.1	80.3	83.8	79.0	81.4	76.8	87.4	80.5	83.5	82.1
April, 1897.....	81.1	80.3	72.4	72.7	72.6	73.9	80.6	74.0	83.5	78.0
July, 1897.....	77.1	80.3	74.3	73.0	73.7	67.9	80.6	76.5	88.6	78.4
October, 1897...	79.1	80.3	74.3	68.2	71.3	67.9	80.6	77.6	89.6	78.7
January, 1898...	71.2	81.3	72.4	63.7	68.1	70.9	75.4	71.2	78.6	74.0
April, 1898.....	63.3	81.3	68.6	69.8	69.2	70.9	75.4	71.2	78.6	74.0
July, 1898.....	61.3	81.3	66.7	71.9	69.3	67.9	72.0	67.9	78.6	71.6
October, 1898...	63.3	81.3	68.6	64.5	66.6	67.9	72.0	67.9	78.6	71.6
January, 1899...	75.2	61.3	64.8	66.9	65.9	65.0	68.7	65.1	78.6	69.4
April, 1899.....	87.0	81.3	70.5	69.3	69.9	76.8	74.0	70.8	78.6	75.1
July, 1899.....	87.0	81.3	72.4	72.2	72.3	76.8	77.2	76.9	86.4	79.3

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

CLOTHS AND CLOTHING—Concluded.

Date.	Suits, all wool, indigo-blue, 54-inch, 14-ounce, Middlesex standard.	Tickings, Amoskeag, A. C. A.	Women's dress goods.				Wool.		
			Cotton warp alpaca, 22-inch, Hamilton.	Cotton warp cashmere, 22-inch, Hamilton.	Cotton warp cashmere, 27-inch, Hamilton.	Average.	Ohio, fine fleece, scoured.	Ohio, medium fleece, scoured.	Average.
January, 1890...	100.0	101.4	100.0	100.0	100.0	100.0	102.8	102.3	102.6
April, 1890.....	100.0	101.4	100.0	100.0	100.0	100.0	102.8	99.3	101.1
July, 1890.....	100.0	99.3	100.0	100.0	100.0	100.0	102.8	102.3	102.6
October, 1890....	100.0	103.5	100.0	100.0	100.0	100.0	102.8	102.3	102.6
January, 1891....	100.0	101.4	100.0	100.0	100.0	100.0	102.8	102.3	102.6
April, 1891.....	100.0	99.3	100.0	100.0	100.0	100.0	99.6	102.3	101.0
July, 1891.....	100.0	97.2	100.0	100.0	100.0	100.0	96.5	96.3	96.4
October, 1891....	100.0	99.3	100.0	100.0	100.0	100.0	96.5	96.3	96.4
January, 1892....	100.0	97.2	100.0	100.0	100.0	100.0	93.3	96.3	94.8
April, 1892.....	100.0	97.2	100.0	100.0	100.0	100.0	90.2	93.8	92.0
July, 1892.....	100.0	97.2	96.7	97.1	97.5	97.1	87.4	93.8	90.6
October, 1892....	100.0	97.2	96.7	97.1	97.5	97.1	90.2	91.2	90.7
January, 1893....	100.0	99.3	96.7	97.1	97.5	97.1	90.2	91.2	90.7
April, 1893.....	100.0	101.4	96.7	97.1	96.0	96.3	93.3	88.2	90.8
July, 1893.....	96.0	101.4	96.7	97.1	95.0	96.3	74.7	71.9	73.3
October, 1893....	96.0	97.2	96.7	97.1	95.0	96.3	71.6	65.5	68.6
January, 1894....	96.0	96.1	93.3	91.2	92.5	92.3	71.6	65.5	68.6
April, 1894.....	96.0	90.8	93.3	91.2	92.5	92.3	65.6	63.4	64.5
July, 1894.....	96.0	90.8	93.3	91.2	92.5	92.3	62.5	58.2	60.4
October, 1894....	96.0	88.7	93.3	91.2	92.5	92.3	59.3	58.2	58.8
January, 1895....	75.4	80.3	86.7	88.2	87.5	87.5	54.5	55.2	54.9
April, 1895.....	75.4	82.4	86.7	88.2	87.5	87.5	51.4	55.2	53.3
July, 1895.....	73.5	88.7	86.7	88.2	85.0	86.6	56.1	58.2	57.2
October, 1895....	73.5	88.7	86.7	88.2	85.0	86.6	56.1	58.2	57.2
January, 1896....	73.5	93.0	86.7	88.2	85.0	86.6	59.3	59.3	59.3
April, 1896.....	73.5	82.4	86.7	88.2	85.0	86.6	59.3	58.2	58.8
July, 1896.....	73.5	84.5	86.7	82.4	85.0	84.7	53.0	49.7	51.4
October, 1896....	73.5	84.5	86.7	82.4	80.0	83.0	56.1	52.7	54.4
January, 1897....	67.6	88.7	86.7	82.4	80.0	83.0	59.3	58.2	58.8
April, 1897.....	67.6	80.3	86.7	82.4	80.0	83.0	65.6	62.0	63.8
July, 1897.....	67.6	80.3	86.7	82.4	80.0	83.0	66.9	65.1	66.0
October, 1897....	67.6	80.3	86.7	82.4	80.0	83.0	84.2	80.1	82.2
January, 1898....	73.5	76.1	86.7	82.4	80.0	83.0	90.2	83.1	86.7
April, 1898.....	73.5	76.1	86.7	82.4	80.0	83.0	90.2	81.4	85.8
July, 1898.....	73.5	76.1	86.7	82.4	80.0	83.0	87.4	80.1	83.8
October, 1898....	73.5	73.9	86.7	82.4	80.0	83.0	88.8	83.1	86.0
January, 1899....	73.5	76.1	86.7	82.4	80.0	83.0	82.5	80.1	81.3
April, 1899.....	73.5	78.2	86.7	82.4	85.0	84.7	77.5	77.1	77.3
July, 1899.....	73.5	78.2	86.7	82.4	85.0	84.7	88.8	85.6	87.2

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

FUEL AND LIGHTING.

Date.	Candles, best adamantine.	Coal, anthracite.			Coal, bituminous.	Matches.		
		Pea.	Stove.	Average.		8-card.	Parlor.	Average.
January, 1890.....	94.7	90.8	106.7	98.8	103.1	99.4	100.0	99.7
April, 1890.....	102.6	107.3	96.9	97.1	98.4	99.4	100.0	99.7
July, 1890.....	102.6	107.3	96.9	102.1	98.4	99.4	100.0	99.7
October, 1890.....	102.6	99.1	104.5	101.8	98.4	99.4	100.0	99.7
January, 1891.....	102.6	99.1	107.0	103.1	96.9	99.4	100.0	99.7
April, 1891.....	102.6	99.1	90.6	94.9	101.6	99.4	100.0	99.7
July, 1891.....	102.6	99.1	98.2	98.7	101.6	99.4	100.0	99.7
October, 1891.....	94.7	99.1	107.0	103.1	101.6	99.4	100.0	99.7
January, 1892.....	94.7	99.1	103.2	101.2	100.0	104.8	100.0	102.4
April, 1892.....	94.7	90.8	98.2	94.5	100.0	104.8	100.0	102.4
July, 1892.....	94.7	90.8	109.5	100.2	98.4	104.8	100.0	102.4
October, 1892.....	94.7	90.8	115.8	103.3	96.9	104.8	100.0	102.4
January, 1893.....	102.6	90.8	115.8	103.3	100.0	120.9	100.0	110.5
April, 1893.....	102.6	90.8	100.7	95.8	98.4	133.0	100.0	116.5
July, 1893.....	102.6	94.1	112.0	103.1	98.4	133.0	100.0	116.5
October, 1893.....	102.6	94.1	112.0	103.1	98.4	133.0	100.0	116.5
January, 1894.....	102.6	99.1	112.0	105.6	98.4	133.0	100.0	116.5
April, 1894.....	102.6	99.1	90.6	94.9	99.1	133.0	100.0	116.5
July, 1894.....	102.6	99.1	100.7	99.9	99.1	133.0	100.0	116.5
October, 1894.....	102.6	99.1	96.9	98.0	99.1	133.0	100.0	116.5
January, 1895.....	102.6	99.1	90.6	94.9	99.1	133.0	100.0	116.5
April, 1895.....	94.7	94.1	83.1	88.6	85.9	133.0	100.0	116.5
July, 1895.....	94.7	94.1	83.1	88.6	85.9	133.0	100.0	116.5
October, 1895.....	94.7	94.1	100.7	97.4	85.9	133.0	100.0	116.5
January, 1896.....	94.7	94.1	91.9	93.0	85.9	133.0	100.0	116.5
April, 1896.....	94.7	87.5	90.6	89.1	90.6	133.0	100.0	116.5
July, 1896.....	94.7	94.1	103.2	98.7	90.6	133.0	100.0	116.5
October, 1896.....	94.7	94.1	109.5	101.8	90.6	133.0	100.0	116.5
January, 1897.....	94.7	87.5	103.2	95.4	90.6	133.0	100.0	116.5
April, 1897.....	94.7	94.1	103.2	98.7	81.3	133.0	100.0	116.5
July, 1897.....	94.7	87.5	109.5	98.5	81.3	133.0	100.0	116.5
October, 1897.....	94.7	87.5	109.5	98.5	81.3	133.0	100.0	116.5
January, 1898.....	94.7	87.5	93.1	90.3	82.8	133.0	100.0	116.5
April, 1898.....	94.7	90.8	96.3	93.9	82.8	133.0	78.9	106.0
July, 1898.....	94.7	94.1	96.9	95.6	85.9	133.0	78.9	106.0
October, 1898.....	94.7	90.8	96.9	93.9	79.7	133.0	78.9	106.0
January, 1899.....	94.7	90.8	90.6	90.7	71.9	133.0	78.9	106.0
April, 1899.....	94.7	90.8	90.6	90.7	73.4	133.0	78.9	106.0
July, 1899.....	94.7	82.6	96.3	89.6	68.8	133.0	78.9	106.0

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

METALS AND IMPLEMENTS.

Date.	Bar iron, best refined, rolled, all muck iron.	Butts, loose joint, cast, 3 by 3 inch.	Copper.			Door- knobs, mineral.	Lead.		
			Sheet.	Wire, No. 8, B. and S. Ga. and heavier.	Average.		Pig.	Pipe.	Aver- age.
January, 1890	106.9	102.0	108.2	101.9	105.1	100.0	89.4	87.1	88.3
April, 1890	104.1	102.0	108.2	101.9	105.1	100.0	89.4	87.1	88.3
July, 1890	101.2	102.0	123.0	116.5	119.8	100.0	102.8	101.6	102.2
October, 1890	104.1	104.5	108.2	116.5	112.4	100.0	116.1	116.1	116.1
January, 1891	101.2	102.0	108.2	104.9	106.6	100.0	94.1	105.2	99.7
April, 1891	95.6	96.9	108.2	99.0	103.6	100.0	100.5	105.2	102.9
July, 1891	95.6	96.9	78.7	93.2	86.0	100.0	103.4	101.6	102.5
October, 1891	95.6	96.9	78.7	87.4	83.1	100.0	105.7	101.6	103.7
January, 1892	95.6	96.9	78.7	78.6	78.7	100.0	98.7	94.4	96.6
April, 1892	90.0	96.9	78.7	87.4	83.1	100.0	98.1	94.4	96.3
July, 1892	95.6	96.9	78.7	87.4	83.1	100.0	97.5	94.4	96.0
October, 1892	93.9	96.9	78.7	81.6	80.2	100.0	91.7	94.4	93.1
January, 1893	89.4	96.9	78.7	81.6	80.2	100.0	87.1	90.7	88.9
April, 1893	87.2	96.9	78.7	81.6	80.2	100.0	91.7	90.7	91.2
July, 1893	85.5	96.9	68.9	78.6	73.8	100.0	79.0	90.7	84.9
October, 1893	78.7	96.9	68.9	72.8	70.9	100.0	84.8	90.7	87.8
January, 1894	73.1	96.9	73.8	69.9	71.9	100.0	74.3	90.7	87.5
April, 1894	67.5	96.9	68.9	69.9	69.4	100.0	76.6	83.5	80.1
July, 1894	67.5	89.2	68.9	64.1	66.5	100.0	72.0	76.2	74.1
October, 1894	64.7	89.2	68.9	65.5	67.2	100.0	70.8	76.2	73.5
January, 1895	61.9	84.1	68.9	65.5	67.2	100.0	69.7	76.2	73.0
April, 1895	61.9	84.1	68.9	65.5	67.2	100.0	70.8	76.2	73.5
July, 1895	74.2	84.1	68.9	74.3	71.6	110.0	72.6	76.2	74.4
October, 1895	79.9	89.2	73.8	83.0	78.4	110.0	73.2	76.2	74.7
January, 1896	70.3	84.1	66.4	77.2	71.8	100.0	69.7	76.2	73.0
April, 1896	67.5	84.1	66.4	78.6	72.5	100.0	69.7	76.2	73.0
July, 1896	67.5	84.1	73.8	81.6	77.7	100.0	69.7	68.0	68.9
October, 1896	67.5	84.1	73.8	78.6	76.2	100.0	60.4	63.5	62.0
January, 1897	68.6	89.2	73.8	81.6	77.7	100.0	67.4	65.3	66.4
April, 1897	64.1	89.2	76.2	81.6	78.9	100.0	74.3	76.2	75.3
July, 1897	53.4	89.2	68.9	78.6	73.8	100.0	77.8	76.2	77.0
October, 1897	64.7	89.2	68.9	78.6	73.8	100.0	92.9	90.7	91.8
January, 1898	64.7	89.2	68.9	75.7	72.3	100.0	82.5	79.8	81.2
April, 1898	59.1	89.2	68.9	81.6	75.3	100.0	81.3	79.8	80.6
July, 1898	59.1	84.1	68.9	81.6	75.3	100.0	83.3	87.1	87.7
October, 1898	61.9	84.1	68.9	81.6	75.3	100.0	88.8	87.1	86.5
January, 1899	63.0	84.1	81.1	87.4	84.3	100.0	85.9	87.1	86.5
April, 1899	92.8	89.2	105.7	116.5	111.1	100.0	96.4	98.0	97.2
July, 1899	112.5	102.0	110.7	110.7	110.7	130.0	98.7	98.0	98.4

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

METALS AND IMPLEMENTS—Continued.

Date.	Locks.			Nails, wire, base price.	Pig iron.			Quick-silver
	Common mortise.	Common rim.	Average.		Bessemer.	No. 1, anthracite, foundry.	Average.	
January, 1890.....	100.0	100.0	100.0	129.0	135.1	110.6	123.0	100.8
April, 1890.....	100.0	100.0	100.0	106.8	102.4	101.5	102.0	100.8
July, 1890.....	100.0	100.0	100.0	106.8	106.8	100.1	103.5	111.2
October, 1890.....	100.0	100.0	100.0	106.8	99.5	100.1	99.8	117.1
January, 1891.....	100.0	100.0	100.0	98.8	91.5	97.3	94.4	103.8
April, 1891.....	100.0	100.0	100.0	94.3	92.4	97.3	94.9	91.9
July, 1891.....	100.0	100.0	100.0	92.1	93.2	97.3	95.3	90.4
October, 1891.....	100.0	100.0	100.0	84.5	88.9	98.7	93.8	89.0
January, 1892.....	100.0	100.0	100.0	81.0	89.8	97.3	93.6	94.9
April, 1892.....	100.0	100.0	100.0	77.9	83.2	88.9	86.1	86.7
July, 1892.....	100.0	100.0	100.0	75.6	80.3	83.7	82.0	81.5
October, 1892.....	100.0	100.0	100.0	69.8	79.7	83.4	81.6	78.6
January, 1893.....	100.0	100.0	100.0	69.8	78.0	82.3	80.2	77.1
April, 1893.....	100.0	100.0	100.0	73.4	79.5	81.0	80.3	77.1
July, 1893.....	100.0	100.0	100.0	65.4	75.8	83.4	79.6	80.1
October, 1893.....	100.0	100.0	100.0	62.3	66.6	78.9	72.8	77.1
January, 1894.....	100.0	100.0	100.0	52.1	62.5	74.3	68.4	66.7
April, 1894.....	100.0	100.0	100.0	44.5	60.2	70.0	65.1	67.5
July, 1894.....	100.0	100.0	100.0	53.4	72.8	69.5	70.9	71.9
October, 1894.....	100.0	100.0	100.0	46.7	63.2	69.5	66.4	73.4
January, 1895.....	100.0	100.0	100.0	42.3	57.7	67.2	62.5	71.2
April, 1895.....	100.0	100.0	100.0	42.3	61.3	66.7	64.0	70.4
July, 1895.....	110.8	111.1	111.0	86.8	81.1	76.7	78.9	80.1
October, 1895.....	110.8	111.1	111.0	106.8	90.5	80.6	85.6	75.6
January, 1896.....	100.0	100.0	100.0	107.7	67.8	75.4	71.6	78.6
April, 1896.....	100.0	100.0	100.0	113.4	76.4	73.7	75.1	74.1
July, 1896.....	100.0	100.0	100.0	120.1	69.5	70.9	70.2	73.4
October, 1896.....	100.0	100.0	100.0	120.1	67.2	69.8	68.5	72.7
January, 1897.....	100.0	100.0	100.0	65.4	61.8	70.9	66.4	72.5
April, 1897.....	100.0	100.0	100.0	65.4	56.9	67.4	62.2	79.3
July, 1897.....	100.0	100.0	100.0	60.1	53.9	65.3	59.6	78.6
October, 1897.....	100.0	100.0	100.0	68.5	61.4	66.7	64.1	74.1
January, 1898.....	100.0	100.0	100.0	69.0	57.4	66.7	62.1	76.4
April, 1898.....	100.0	100.0	100.0	65.4	59.4	65.3	62.4	78.6
July, 1898.....	100.0	100.0	100.0	60.5	59.2	62.5	60.9	84.5
October, 1898.....	100.0	100.0	100.0	65.0	59.7	65.0	62.4	78.3
January, 1899.....	100.0	100.0	100.0	70.7	63.1	67.4	65.3	81.5
April, 1899.....	114.5	113.3	113.9	100.1	86.4	91.7	89.1	86.0
July, 1899.....	114.5	113.3	113.9	120.1	117.8	113.2	115.3	86.7

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

METALS AND IMPLEMENTS—Concluded.

Date.	Rope.			Saws, hand, standard, Disston's.	Scythes.	Shovels, Ames No. 2, cast steel, D handle, square point, back strap.	Spelter, domes- tic.	Steel billets.	Steel rails, Besse- mer.
	Manilla.	Tarred, Ameri- can.	Aver- age.						
January, 1890	111.4	98.8	105.1	97.1	105.9	100.0	107.9	124.7	113.6
April, 1890	126.4	98.8	112.6	97.1	105.9	100.0	103.9	120.0	108.0
July, 1890	124.3	98.8	111.6	97.1	105.9	100.0	109.9	112.6	101.5
October, 1890	117.9	98.8	108.4	97.1	105.9	100.0	117.9	103.9	96.7
January, 1891	94.3	98.8	96.6	103.6	95.3	100.0	84.9	88.9	93.5
April, 1891	87.9	98.8	93.4	103.6	95.3	100.0	102.4	87.8	96.7
July, 1891	77.1	98.8	88.0	103.6	95.3	100.0	89.9	89.4	96.7
October, 1891	72.9	98.8	85.9	103.6	95.3	100.0	89.9	86.1	96.7
January, 1892	87.9	109.8	98.9	97.1	95.3	100.0	92.9	86.6	96.7
April, 1892	92.1	107.0	99.6	97.1	95.3	100.0	91.9	79.2	96.7
July, 1892	92.1	107.0	99.6	97.1	95.3	100.0	95.9	80.7	96.7
October, 1892	87.9	104.3	96.1	97.1	95.3	100.0	89.9	81.6	96.7
January, 1893	81.4	101.5	91.5	97.1	95.3	100.0	87.4	75.4	93.5
April, 1893	81.4	104.3	92.9	97.1	95.3	100.0	85.9	78.7	93.5
July, 1893	79.3	104.3	91.8	97.1	95.3	100.0	83.0	74.0	93.5
October, 1893	66.4	104.3	85.4	97.1	95.3	100.0	75.0	62.2	88.6
January, 1894	62.1	104.3	83.2	97.1	95.3	94.7	70.0	55.8	77.3
April, 1894	60.0	98.8	79.4	97.1	95.3	94.7	74.0	54.4	77.3
July, 1894	64.3	98.8	81.6	97.1	95.3	94.7	69.5	61.5	77.3
October, 1894	64.3	98.8	81.6	97.1	95.3	94.7	68.5	55.4	77.3
January, 1895	64.3	96.0	80.2	97.1	95.3	94.7	65.5	51.2	70.9
April, 1895	53.6	96.0	74.8	97.1	95.3	94.7	64.2	53.4	70.9
July, 1895	53.6	96.0	74.8	97.1	95.3	94.7	72.2	73.0	77.3
October, 1895	57.9	96.0	77.0	97.1	95.3	94.7	83.2	76.9	90.2
January, 1896	55.7	96.0	75.9	97.1	95.3	94.7	71.5	57.5	90.2
April, 1896	53.6	96.0	74.8	97.1	95.3	100.8	82.5	68.6	90.2
July, 1896	49.3	96.0	72.7	97.1	95.3	100.8	81.5	67.6	90.2
October, 1896	49.3	96.0	72.7	97.1	95.3	100.8	72.5	68.4	90.2
January, 1897	53.6	96.0	74.8	97.1	95.3	100.8	81.8	55.1	80.6
April, 1897	47.1	96.0	71.6	97.1	95.3	100.8	81.8	50.8	58.0
July, 1897	45.0	96.0	70.5	97.1	95.3	100.8	85.9	48.5	58.0
October, 1897	45.0	96.0	70.5	97.1	95.3	100.8	84.9	57.3	58.0
January, 1898	49.3	96.0	72.7	97.1	95.3	100.8	79.0	52.0	58.0
April, 1898	51.4	96.0	73.7	97.1	95.3	100.8	85.9	53.0	58.0
July, 1898	85.7	96.0	90.9	97.1	95.3	100.8	99.9	51.1	54.8
October, 1898	81.4	96.0	88.7	97.1	95.3	100.8	97.4	54.7	56.4
January, 1899	64.3	96.0	80.2	97.1	95.3	100.8	103.4	59.1	59.6
April, 1899	81.4	96.0	88.7	97.1	95.3	110.4	127.4	87.5	83.0
July, 1899	83.6	96.0	89.8	97.1	105.9	110.4	124.9	117.1	91.0

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

LUMBER AND BUILDING MATERIALS.

Date.	Brick, common domestic building.	Carbon- ate of lead in oil (Ameri- can pure white lead).	Cement, Rosen- dale.	Chestnut lumber, in the log, not sawed.	Doors, pine, un- molded, 2 ft. 4 in. by 6 ft. 8 in., 1½ in. thick.	Hemlock boards, first qual- ity, 1-in., not planed.	Lime, Rock- land.	Maple boards, first qual- ity, 1-in., rough.	Oak boards, white, plain, first qual- ity, 1-in., rough.
Jan., 1890..	119.4	108.8	105.9	101.9	114.9	96.8	100.4	100.0	100.0
Apr., 1890..	117.3	107.0	94.1	101.9	114.9	96.8	111.5	100.0	100.0
July, 1890..	94.7	92.2	94.1	101.9	95.7	106.5	100.4	100.0	100.0
Oct., 1890..	107.0	99.6	100.0	101.9	95.7	106.5	100.4	100.0	100.0
Jan., 1891..	98.8	103.3	100.0	101.9	95.7	101.6	100.4	100.0	100.0
Apr., 1891..	90.6	95.9	100.0	101.9	95.7	101.6	94.8	100.0	100.0
July, 1891..	84.4	99.6	100.0	101.9	95.7	96.8	100.4	100.0	100.0
Oct., 1891..	90.6	99.6	100.0	101.9	95.7	96.8	94.8	100.0	100.0
Jan., 1892..	97.2	99.6	105.9	84.9	95.7	96.8	97.0	100.0	100.0
Apr., 1892..	93.9	99.6	94.1	84.9	95.7	96.8	95.9	100.0	100.0
July, 1892..	88.9	99.6	94.1	84.9	95.7	101.6	105.9	100.0	100.0
Oct., 1892..	90.6	99.6	94.1	84.9	95.7	101.6	94.8	100.0	100.0
Jan., 1893..	105.4	99.6	100.0	84.9	103.4	101.6	109.3	100.0	100.0
Apr., 1893..	96.0	84.8	94.1	76.4	95.7	96.8	100.4	100.0	100.0
July, 1893..	88.9	92.2	91.2	76.4	88.1	96.8	100.4	100.0	100.0
Oct., 1893..	86.5	95.9	94.1	76.4	88.1	96.8	105.9	100.0	100.0
Jan., 1894..	93.0	84.8	100.0	76.4	84.3	91.9	98.1	95.5	100.0
Apr., 1894..	82.3	75.6	91.2	76.4	84.3	91.9	92.6	95.5	100.0
July, 1894..	76.2	75.6	88.2	76.4	76.6	87.1	96.1	95.5	100.0
Oct., 1894..	78.2	77.5	88.2	76.4	76.6	87.1	94.8	95.5	100.0
Jan., 1895..	95.5	77.5	100.0	76.4	72.8	87.1	89.2	95.5	100.0
Apr., 1895..	88.5	73.8	91.2	76.4	68.9	87.1	89.2	95.5	100.0
July, 1895..	78.2	81.1	88.2	76.4	68.9	84.7	83.6	95.5	100.0
Oct., 1895..	84.4	81.1	88.2	76.4	68.9	82.3	78.1	95.5	100.0
Jan., 1896..	90.6	81.1	97.1	76.4	65.1	77.4	87.0	90.9	97.1
Apr., 1896..	84.4	77.5	88.2	76.4	65.1	77.4	78.1	90.9	97.1
July, 1896..	77.4	77.5	85.3	76.4	65.1	77.4	69.1	90.9	97.1
Oct., 1896..	77.4	77.5	88.2	76.4	61.3	77.4	74.7	90.9	97.1
Jan., 1897..	82.3	77.5	94.1	76.4	61.3	79.8	72.5	90.9	97.1
Apr., 1897..	74.1	77.5	85.3	76.4	61.3	79.8	81.4	95.5	97.1
July, 1897..	72.0	77.5	82.4	76.4	61.3	79.8	83.6	95.5	97.1
Oct., 1897..	84.4	77.5	82.4	76.4	65.1	82.3	83.6	95.5	97.1
Jan., 1898..	98.8	81.1	85.3	76.4	65.1	82.3	87.0	95.5	100.0
Apr., 1898..	90.6	81.1	82.4	84.9	68.9	87.1	90.3	95.5	100.0
July, 1898..	88.5	81.1	79.4	84.9	72.8	87.1	72.5	95.5	100.0
Oct., 1898..	94.7	81.1	82.4	84.9	76.6	91.9	72.5	95.5	100.0
Jan., 1899..	102.9	81.1	88.2	84.9	84.3	101.6	83.6	95.5	100.0
Apr., 1899..	96.8	84.8	82.4	93.4	88.1	111.3	89.2	100.0	102.9
July, 1899..	86.5	84.8	94.1	93.4	95.7	121.0	83.6	100.0	102.9

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

LUMBER AND BUILDING MATERIALS—Concluded.

Date.	Pine boards.				Putty.	Shingles, pine, 16 inches, XXX.	Spruce boards, No. 2, 1-inch.	Tar, Wilmington.	Turpentine.
	White, clear, 1-inch, not planed.	White, common, 1-inch, not planed.	White, cnls, 1-inch, not planed.	Average.					
January, 1890...	101.8	105.1	104.5	103.8	100.0	110.6	97.7	94.4	112.7
April, 1890.....	101.8	105.1	104.5	103.8	100.0	110.6	104.7	91.9	106.9
July, 1890.....	99.5	98.5	100.4	99.5	100.0	97.0	101.2	96.8	102.6
October, 1890....	97.2	98.5	100.4	98.7	100.0	97.0	101.2	106.9	99.4
January, 1891....	99.5	98.5	100.4	99.5	100.0	107.2	101.2	99.2	98.8
April, 1891.....	99.5	98.5	100.4	99.5	100.0	107.2	101.2	99.2	102.6
July, 1891.....	99.5	98.5	98.4	98.1	100.0	90.2	97.7	96.8	95.0
October, 1891....	99.5	98.5	96.4	98.1	100.0	90.2	97.7	106.4	98.7
January, 1892....	101.8	98.5	96.4	98.9	100.0	90.2	97.7	106.4	86.1
April, 1892.....	104.1	98.5	96.4	99.7	100.0	90.2	101.2	106.4	95.0
July, 1892.....	106.4	101.8	100.4	102.9	80.0	90.2	97.7	106.9	74.7
October, 1892....	108.7	101.8	104.5	105.0	91.4	90.2	97.7	101.6	72.2
January, 1893....	111.1	101.8	104.5	105.8	91.4	88.5	97.7	99.2	78.5
April, 1893.....	111.1	101.8	108.5	107.1	91.4	88.5	104.7	96.8	85.5
July, 1893.....	111.1	98.5	108.5	106.0	91.4	88.5	101.2	94.4	73.8
October, 1893....	111.1	98.5	108.5	106.0	91.4	88.5	97.7	99.2	69.7
January, 1894....	108.7	98.5	108.5	105.2	91.4	88.5	94.2	91.9	73.5
April, 1894.....	106.4	98.5	108.5	104.5	91.4	86.8	97.7	87.1	73.8
July, 1894.....	104.1	96.9	104.5	101.8	91.4	86.8	94.2	87.1	76.6
October, 1894....	104.1	96.9	100.4	100.5	82.9	86.8	90.7	96.8	72.2
January, 1895....	104.1	95.3	96.4	98.6	82.9	86.8	94.2	89.5	70.3
April, 1895.....	104.1	92.0	92.4	96.2	82.9	86.8	101.2	89.5	98.2
July, 1895.....	104.1	92.0	88.4	94.8	82.9	86.8	97.7	104.0	73.5
October, 1895....	101.8	92.0	86.4	94.1	82.9	85.1	94.2	99.2	70.9
January, 1896....	101.8	88.7	88.4	93.0	82.9	85.1	94.2	89.5	76.0
April, 1896.....	101.8	88.7	88.4	93.0	82.9	85.1	94.2	84.7	72.2
July, 1896.....	101.8	88.7	88.4	93.0	82.9	85.1	90.7	94.4	64.0
October, 1896....	104.1	88.7	88.4	93.7	82.9	86.8	90.7	89.5	70.9
January, 1897....	104.1	85.4	88.4	92.6	82.9	86.8	90.7	94.4	67.1
April, 1897.....	104.1	85.4	88.4	92.6	82.9	83.5	90.7	87.1	74.1
July, 1897.....	104.1	78.8	80.4	87.8	82.9	88.5	90.7	96.8	67.1
October, 1897....	104.1	78.8	80.4	87.8	82.9	88.5	90.7	108.9	83.0
January, 1898....	104.1	78.8	80.4	87.8	82.9	90.2	90.7	89.5	84.9
April, 1898.....	104.1	82.1	84.4	90.2	82.9	90.2	90.7	84.7	81.1
July, 1898.....	104.1	85.4	88.4	92.6	82.9	91.9	90.7	104.0	66.5
October, 1898....	104.1	88.7	88.4	93.7	82.9	91.9	90.7	106.9	77.3
January, 1899....	106.4	95.3	96.4	99.4	80.0	93.6	97.7	104.0	115.3
April, 1899.....	111.1	101.8	104.5	105.8	97.1	97.0	101.2	99.2	107.7
July, 1899.....	118.0	111.7	112.5	114.1	97.1	102.1	104.7	121.0	97.5

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

DRUGS AND CHEMICALS.

Date.	Alcohol, 94 per cent.	Brim- stone, crude.	Glycerin, Amer- ican, re- fined.	Linseed oil, domestic raw, in barrels.	Opium.	Quinine, Amer- ican, bulk.	Soda ash, carbon- ate, 48 per cent.	Sul- phuric acid, 66 per cent.
January, 1890.....	90.8	76.7	109.5	111.3	124.7	122.6	85.8	114.9
April, 1890.....	90.8	76.7	109.5	115.0	128.3	108.6	153.3	114.9
July, 1890.....	97.2	86.6	109.5	115.0	135.5	108.6	85.8	97.7
October, 1890.....	100.9	84.6	103.4	115.0	137.3	112.1	92.0	97.7
January, 1891.....	101.8	102.3	97.3	107.6	84.9	105.1	99.6	80.5
April, 1891.....	103.7	137.7	94.3	105.8	75.9	87.5	98.1	97.7
July, 1891.....	103.7	98.4	94.3	87.2	72.3	87.5	95.0	97.7
October, 1891.....	105.5	118.0	91.2	74.2	72.3	84.0	95.0	97.7
January, 1892.....	105.5	119.0	91.2	68.7	68.7	84.0	95.0	97.7
April, 1892.....	100.9	87.5	85.1	72.4	63.3	84.0	95.0	97.7
July, 1892.....	103.7	94.4	85.1	77.9	59.6	77.0	93.5	114.9
October, 1892.....	102.8	92.5	82.1	81.6	58.7	70.0	98.1	114.9
January, 1893.....	116.5	81.6	82.1	89.1	68.7	70.0	95.0	103.4
April, 1893.....	104.6	76.7	82.1	92.8	112.0	77.0	82.8	103.4
July, 1893.....	100.0	75.7	82.1	92.8	94.0	77.0	76.6	97.7
October, 1893.....	100.0	67.9	82.1	74.2	97.6	77.0	70.5	86.2
January, 1894.....	102.8	69.8	79.1	87.2	81.3	87.5	70.5	86.2
April, 1894.....	102.8	67.9	73.0	96.5	94.9	96.3	76.6	86.2
July, 1894.....	102.8	67.9	69.9	100.2	77.7	87.5	76.6	86.2
October, 1894.....	115.6	62.0	69.9	100.2	68.7	89.3	70.5	80.5
January, 1895.....	106.9	63.9	69.9	103.9	84.9	89.3	70.5	80.5
April, 1895.....	108.7	62.0	66.9	103.9	75.9	87.5	70.5	80.5
July, 1895.....	107.8	62.0	66.9	107.6	60.5	87.5	58.2	80.5
October, 1895.....	105.5	61.0	66.9	81.6	61.4	87.5	61.3	80.5
January, 1896.....	106.4	60.0	100.3	77.9	74.1	94.6	61.3	80.5
April, 1896.....	106.4	62.0	100.3	74.2	72.3	92.8	67.4	80.5
July, 1896.....	106.0	72.8	100.3	68.7	72.3	91.1	67.4	80.5
October, 1896.....	104.6	81.6	100.3	64.9	79.5	74.4	55.2	80.5
January, 1897.....	103.7	82.6	100.3	57.5	79.5	61.3	55.2	114.9
April, 1897.....	103.7	77.7	73.0	59.4	86.7	52.5	55.2	114.9
July, 1897.....	105.0	76.7	73.0	53.8	84.9	52.5	55.2	114.9
October, 1897.....	106.0	81.6	73.0	63.1	94.9	80.5	55.2	97.7
January, 1898.....	103.7	82.6	69.9	77.9	96.5	87.5	55.2	114.9
April, 1898.....	103.4	86.6	66.9	72.4	110.7	73.5	55.2	114.9
July, 1898.....	108.7	90.5	79.1	76.1	128.3	70.0	46.0	137.9
October, 1898.....	109.6	82.6	74.5	61.2	131.0	68.3	46.0	137.9
January, 1899.....	111.9	83.6	73.0	76.1	123.8	73.5	46.0	137.9
April, 1899.....	111.0	85.6	73.0	87.2	106.4	133.1	46.0	137.9
July, 1899.....	111.9	81.6	76.0	72.4	113.0	119.1	55.2	137.9

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

HOUSE-FURNISHING GOODS.

Date.	Furniture.				Glass-ware, tumblers, 4-pint, medium grade.	Pails, wooden, 2-hoop.	Tubs, wooden.		
	Chairs, bedroom, maple, cane seat.	Chairs, kitchen, common spindle.	Tables, kitchen, pine, 34-foot.	Average.			Nest of 3.	Nest of 8.	Average.
January, 1890	100.2	99.9	100.0	100.0	99.6	100.0	100.0	100.3	100.2
April, 1890	100.2	99.9	100.0	100.0	99.6	100.0	100.0	100.3	100.2
July, 1890	100.2	99.9	100.0	100.0	99.6	100.0	100.0	100.3	100.2
October, 1890	100.2	99.9	100.0	100.0	99.6	100.0	100.0	100.3	100.2
January, 1891	100.2	99.9	100.0	100.0	99.6	109.1	100.0	100.3	100.2
April, 1891	100.2	99.9	100.0	100.0	99.6	100.0	100.0	100.3	100.2
July, 1891	100.2	99.9	100.0	100.0	99.6	100.0	100.0	100.3	100.2
October, 1891	100.2	99.9	100.0	100.0	99.6	100.0	100.0	100.3	100.2
January, 1892	98.1	101.1	100.0	99.7	103.5	90.9	100.0	97.7	98.9
April, 1892	98.1	101.1	100.0	99.7	103.5	86.4	100.0	95.0	97.5
July, 1892	98.1	101.1	100.0	99.7	103.5	86.4	100.0	92.4	96.2
October, 1892	98.1	101.1	100.0	99.7	103.5	86.4	98.4	89.7	94.1
January, 1893	98.1	101.1	100.0	99.7	99.6	81.8	94.4	84.5	89.5
April, 1893	98.1	101.1	100.0	99.7	99.6	81.8	84.0	79.2	81.6
July, 1893	98.1	101.1	100.0	99.7	99.6	80.0	78.4	73.9	76.2
October, 1893	98.1	101.1	100.0	99.7	99.6	77.3	76.0	73.9	75.0
January, 1894	85.9	83.2	95.0	88.0	99.6	77.3	72.0	71.3	71.7
April, 1894	85.9	83.2	95.0	88.0	99.6	72.7	72.0	71.3	71.7
July, 1894	85.9	83.2	95.0	88.0	99.6	77.3	68.0	68.6	68.3
October, 1894	85.9	83.2	95.0	88.0	99.6	77.3	68.0	63.3	65.7
January, 1895	85.9	83.2	95.0	88.0	91.6	72.7	60.0	63.3	61.7
April, 1895	85.9	83.2	95.0	88.0	91.6	77.3	61.6	60.7	61.2
July, 1895	85.9	83.2	95.0	88.0	91.6	68.2	56.0	58.1	57.1
October, 1895	85.9	83.2	95.0	88.0	91.6	81.8	68.0	63.3	65.7
January, 1896	85.9	83.2	92.0	87.0	79.6	77.3	72.0	73.9	73.0
April, 1896	85.9	83.2	92.0	87.0	79.6	72.7	72.0	71.3	71.7
July, 1896	85.9	83.2	92.0	87.0	79.6	77.3	68.0	68.6	68.3
October, 1896	85.9	83.2	92.0	87.0	79.6	81.8	68.0	68.6	68.3
January, 1897	71.6	83.2	92.0	82.3	79.6	77.3	68.0	67.0	67.5
April, 1897	71.6	83.2	92.0	82.3	79.6	81.8	70.4	71.3	70.9
July, 1897	71.6	83.2	92.0	82.3	79.6	81.8	68.0	71.3	69.7
October, 1897	71.6	83.2	92.0	82.3	79.6	77.3	64.0	68.6	66.8
January, 1898	71.6	77.3	92.0	80.3	75.7	72.7	64.0	71.3	67.7
April, 1898	71.6	77.3	92.0	80.3	75.7	72.7	68.0	73.9	71.0
July, 1898	71.6	77.3	92.0	80.3	75.7	68.2	68.0	73.9	71.0
October, 1898	78.8	83.2	92.0	84.7	75.7	68.2	68.0	73.9	71.0
January, 1899	78.8	83.2	92.0	84.7	79.6	77.3	76.0	76.5	76.3
April, 1899	89.5	95.1	92.0	92.2	79.6	86.4	88.0	87.1	87.6
July, 1899	89.5	101.1	100.0	95.9	79.6	95.5	100.0	92.4	96.2

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Continued.

MISCELLANEOUS.

Date.	Powder, rifle.	Rubber, Para, new fine.	Soap, castile, mottled, pure.	Starch.		
				Pure.	Sliver gloss.	Aver- age.
January, 1890.....	92.8	91.5	94.5	94.7	100.4	97.6
April, 1890.....	92.8	105.3	94.5	94.7	100.4	97.6
July, 1890.....	102.1	112.8	102.7	94.7	100.4	97.6
October, 1890.....	102.1	115.3	98.6	103.3	100.4	101.9
January, 1891.....	102.1	99.0	98.6	103.3	100.4	101.9
April, 1891.....	102.1	113.4	98.6	103.3	100.4	101.9
July, 1891.....	102.1	103.4	98.6	103.3	100.4	101.9
October, 1891.....	102.1	79.0	106.8	103.3	100.4	101.9
January, 1892.....	102.1	80.2	106.8	99.0	96.8	97.9
April, 1892.....	102.1	90.3	106.8	99.0	96.8	97.9
July, 1892.....	92.8	85.9	106.8	99.0	96.8	97.9
October, 1892.....	78.9	85.9	100.7	99.0	96.8	97.9
January, 1893.....	74.2	86.5	100.7	99.0	96.8	97.9
April, 1893.....	74.2	97.8	100.7	99.0	96.8	97.9
July, 1893.....	64.9	84.0	100.7	99.0	96.8	97.9
October, 1893.....	60.3	89.6	100.7	99.0	96.8	97.9
January, 1894.....	60.3	87.1	102.7	99.0	96.8	97.9
April, 1894.....	60.3	83.4	98.6	99.0	96.8	97.9
July, 1894.....	60.3	84.0	98.6	103.3	100.4	101.9
October, 1894.....	60.3	87.1	92.5	99.0	96.8	97.9
January, 1895.....	60.3	92.8	86.3	99.0	96.8	97.9
April, 1895.....	60.3	90.9	84.2	99.0	96.8	97.9
July, 1895.....	60.3	91.8	82.2	99.0	96.8	97.9
October, 1895.....	60.3	95.3	82.2	99.0	96.8	97.9
January, 1896.....	60.3	96.5	82.2	99.0	96.8	97.9
April, 1896.....	60.3	92.8	82.2	94.7	93.2	94.0
July, 1896.....	74.2	103.4	82.2	94.7	93.2	94.0
October, 1896.....	74.2	103.4	82.2	94.7	93.2	94.0
January, 1897.....	74.2	99.0	86.3	94.7	93.2	94.0
April, 1897.....	74.2	102.2	86.3	94.7	93.2	94.0
July, 1897.....	74.2	104.0	86.3	94.7	93.2	94.0
October, 1897.....	74.2	107.8	90.4	94.7	93.2	94.0
January, 1898.....	74.2	103.4	90.4	94.7	93.2	94.0
April, 1898.....	74.2	117.8	90.4	94.7	93.2	94.0
July, 1898.....	74.2	119.7	90.4	94.7	93.2	94.0
October, 1898.....	74.2	115.9	90.4	94.7	93.2	94.0
January, 1899.....	74.2	118.5	90.4	94.7	93.2	94.0
April, 1899.....	74.2	127.9	90.4	94.7	93.2	94.0
July, 1899.....	74.2	124.1	90.4	94.7	93.2	94.0

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—RELATIVE PRICES—Concluded.

SUMMARY BY GROUPS.

Date.	Food.	Cloths and clothing.	Fuel and lighting.	Metals and imple-ments.	Lumber and building materials.	Drugs and chemi-cals.	House-furnish-ing goods.	Miscel-laneous.	All articles.
January, 1890	99.2	101.9	99.0	106.8	104.1	104.5	100.0	94.1	102.0
April, 1890	97.8	102.2	99.5	103.5	101.2	112.1	100.0	97.6	101.9
July, 1890	96.5	102.1	100.7	105.3	98.8	104.5	100.0	103.8	100.4
October, 1890	103.3	102.4	100.6	105.7	101.1	105.4	100.0	104.5	103.1
January, 1891	103.0	100.3	100.6	98.1	100.5	97.4	102.2	100.4	100.6
April, 1891	104.8	98.5	99.7	97.5	99.3	100.1	100.0	104.0	100.7
July, 1891	99.6	97.9	100.7	95.1	97.1	92.0	100.0	101.5	97.7
October, 1891	101.5	97.6	99.8	94.0	97.7	92.2	100.0	97.5	97.9
January, 1892	98.1	97.0	99.6	94.1	97.1	91.2	98.3	96.8	96.5
April, 1892	93.3	96.0	97.9	92.3	96.9	85.7	96.8	99.3	94.2
July, 1892	94.8	96.2	98.9	92.3	95.0	88.3	96.5	95.9	94.5
October, 1892	97.7	96.3	99.3	90.7	94.6	87.6	95.9	90.9	94.7
January, 1893	103.8	96.9	104.1	88.9	97.7	88.3	92.7	89.8	97.2
April, 1893	102.6	98.3	103.8	89.4	94.5	91.4	90.7	92.7	96.6
July, 1893	96.1	95.6	105.2	87.6	92.6	87.0	88.0	86.9	93.1
October, 1893	101.0	96.0	105.2	84.4	93.1	81.9	87.9	87.1	93.0
January, 1894	94.2	90.0	105.8	80.6	91.2	83.1	84.2	87.0	89.6
April, 1894	87.8	87.8	100.8	79.0	88.7	86.8	83.0	85.1	86.7
July, 1894	87.5	86.2	102.0	79.4	87.4	83.6	83.3	86.2	86.0
October, 1894	93.3	85.4	101.6	78.2	86.9	82.1	82.7	84.5	86.9
January, 1895	90.3	80.0	100.8	76.1	87.8	83.7	78.6	84.3	84.7
April, 1895	91.5	79.4	96.4	75.9	88.4	82.0	79.5	83.3	84.7
July, 1895	87.9	83.6	96.4	84.7	86.9	78.9	76.2	83.1	85.2
October, 1895	85.8	88.3	98.6	89.1	85.4	75.7	81.8	83.9	86.3
January, 1896	84.4	87.2	97.5	83.7	85.6	81.9	79.2	84.2	85.2
April, 1896	80.2	83.3	97.7	85.6	83.1	82.0	77.8	82.3	83.0
July, 1896	75.8	81.4	100.1	85.4	81.8	82.4	78.1	83.5	81.5
October, 1896	78.9	82.8	100.9	83.7	82.4	80.1	79.2	86.5	82.4
January, 1897	79.6	82.3	99.3	80.1	83.1	81.9	76.7	88.4	82.0
April, 1897	78.2	81.4	97.8	78.8	83.0	77.9	78.7	89.2	80.9
July, 1897	76.0	81.4	97.8	77.4	82.6	77.0	78.4	89.6	79.9
October, 1897	83.1	83.0	97.8	80.6	85.7	81.5	76.4	91.6	83.6
January, 1898	88.4	80.8	96.1	79.4	86.5	86.3	74.1	90.5	83.3
April, 1898	82.9	80.9	94.4	79.7	86.7	85.4	74.9	94.1	83.3
July, 1898	83.2	80.9	95.5	81.4	86.0	92.1	73.8	94.6	84.2
October, 1898	84.2	80.3	93.6	81.6	88.3	88.9	74.9	93.6	84.4
January, 1899	86.6	80.7	90.8	83.2	94.1	90.7	79.5	94.3	86.5
April, 1899	87.1	82.5	91.2	96.1	97.1	97.8	86.5	96.6	90.8
July, 1899	85.9	84.5	89.8	107.9	99.9	95.9	92.1	95.7	92.9

The most superficial glance at the table reveals the fact that while the tendency has been in the main toward falling prices the last months show a rise. This is by no means equal among the various groups, the final figures showing considerable variation, though the minimum figures for the various groups show greater uniformity. Of course it will be recognized that some of the groups comprise but a limited number of articles, and are thus not so well suited for comparison as the larger groups.

It is of interest to know not only the movement of the average, but also how far the individual articles vary from the average. In the Aldrich report the final date of the investigation was selected for such an exhibit. Here a like course seems unadvisable. Prices in general move up or down through considerable periods of time, and when the given movement is well under way it may be surmised that prices move together and that individual quotations follow more or less closely the general movement. A period of change from an upward to a downward movement or vice versa does not impress itself at once

upon all articles, but upon one after the other. The final date, July, 1899, was in the midst of such a period of change. Certain articles had felt the upward impulse, others had not. The range of variation therefore in July, 1899, is greater than at any date before the rise of prices began, and probably greater than at a later date when the rise will have been communicated to all the articles included in the investigation. It has been deemed preferable then to choose the date, January, 1899, before a conspicuous upward movement began to show the range of price variation from the general average. The result is shown in the table which follows:

RELATIVE PRICES OF 99 ARTICLES IN EACH SPECIFIED PRICE CLASS, JANUARY, 1899.

Articles classified according to relative prices.	Relative price.	Articles classified according to relative prices.	Relative price.	Articles classified according to relative prices.	Relative price.
<i>Below 70.</i>		<i>80 to 90—concluded.</i>		<i>90 to 100—concluded.</i>	
Food:		Food—Concluded.		Metals and implements:	
Coffee	41.5	Meat, ham	84.6	Scythes	95.3
Nutmegs	48.6	Meat, bacon	85.3	Saws	97.1
Beans	61.5	Meat, salt	86.6	Lumber and building materials:	
Meal, corn	66.5	Butter	87.5	Shingles	93.6
Cloths and clothing:		Lard	88.3	Maple	95.5
Cotton	60.7	Cloths and clothing:		Spruce	97.7
Sheetings	65.9	Shawls	81.3	Pine	99.4
Drillings	69.3	Wool	81.3	Miscellaneous:	
Shirtings	69.4	Dress goods	83.0	Soap	90.4
Metals and implements:		Flannels	84.1	Starch	94.0
Steel billets	59.1	Felts	88.1		
Steel rails	59.6	Bags	88.9	Total, 90 to 100	21
Bar iron	63.0	Carpets	89.4		
Pig iron	65.3	Metals and implements:		<i>100 to 110.</i>	
Drugs and chemicals:		Rope	80.2	Food:	
Soda ash	46.0	Quicksilver	81.5	Meat, beef	105.7
Total below 70	13	Butts	84.1	Cheese	109.6
		Copper	84.3	Fuel and lighting:	
<i>70 to 80.</i>		Lead	86.5	Matches	106.0
Food:		Lumber and building materials:		Metals and implements:	
Flour, wheat	72.5	Putty	90.0	Locks	100.0
Fruit	76.5	Carbonate of lead	81.1	Doorknobs	100.0
Baked beans	77.6	Lime	83.6	Shovels	100.8
Meat, mutton	78.5	Doors, pine	84.3	Spelter	103.4
Tallow	79.5	Chestnut lumber	84.9	Lumber and building materials:	
Cloths and clothing:		Cement	88.2	Oak	100.0
Ginghams	70.4	Drugs and chemicals:		Hemlock	101.6
Denims	71.4	Brimstone	83.6	Brick	102.9
Calico	73.0	House furnishing goods:		Tar	104.0
Suitings	73.5	Furniture	84.7		
Print cloths	75.2	Total, 80 to 90	26	Total, 100 to 110	11
Tickings	76.1				
Fuel and lighting:		<i>90 to 100.</i>		<i>110 or over.</i>	
Coal, bituminous	71.9	Food:		Food:	
Metals and implements:		Fish	90.7	Pepper	110.1
Nails	70.7	Salt	94.3	Meat, beef on the hoof	118.4
Drugs and chemicals:		Starch, corn	94.3	Cloths and clothing:	
Glycerin	73.0	Sugar	96.5	Leather	119.9
Quinine	73.5	Milk	96.7	Lumber and building materials:	
Linseed oil	76.1	Molasses	96.8	Turpentine	115.3
House furnishing goods:		Eggs	96.9	Drugs and chemicals:	
Tubs	76.3	Bread	97.8	Alcohol	111.9
Pails	77.3	Rice	98.7	Opium	123.8
Glassware	79.6	Cloths and clothing:		Sulphuric acid	137.9
Miscellaneous:		Boots and shoes	95.4	Miscellaneous:	
Powder	74.2	Cotton thread	97.3	Rubber	118.5
Total, 70 to 80	20	Fuel and lighting:		Total, 110 or over ...	8
		Coal, anthracite	90.7		
<i>80 to 90.</i>		Candles	94.7		
Food:					
Flour, rye	83.2				

Summarizing the foregoing table, it appears that of the total 99 articles, whose average relative price was 86.5 in January, 1899, 67 articles

stand between 70 and 100, or within a range of approximately 15 points above or below the average. The number of articles which exceed 100—that is, which show a rise in price—is 19, while 13 articles show a fall in price of more than 30 points.

More significant than the final prices has been the course of prices during the period under discussion, January, 1890, to July, 1899. From 102.0 in January, 1890, prices fell with only trifling interruptions until July, 1897, when they reached the point 79.9. There was a recovery to nearly 84 in October, and comparative stability at this point until October, 1898. A slight rise was noticeable in January, 1899, but the tendency was more conspicuous in April and July.

An examination of prices at each quarter period shows that the tendency to fall, which prevailed during the greater part of the period, was not wholly without interruption, and the question arises as to the causes of these temporary movements in a counter direction. The first conspicuous check to the falling tendency appears in October, 1890. A reference to the various groups shows that between July, 1890, and October, 1890, there was a very considerable rise of price in the food group. This change is due to the inclusion in this group of certain articles whose prices vary with the seasons, and the study of the detailed table shows between July, 1890, and October, 1890, marked changes in the prices of beans, butter, cheese, eggs, and dried fruit. Returning to general prices, we find another interruption to the falling tendency occurring in January and April, 1893. Again, the change is caused by variations in the prices of food products, and an examination of the detailed table shows changes between October, 1892, and January, 1893, in such seasonal articles as butter, cheese, and notably eggs, which in that month reached the highest point in the whole period covered by this investigation. But a more striking variation occurs in this period in the prices of hog products (lard, salt pork, bacon, and ham) and tallow. From July, 1893, the downward course of prices is fairly regular until April, 1895, though the variation of the seasonal articles in October, 1894, causes an almost inappreciable rise in general prices. July and October, 1895, together with January, 1896, show a slight rise in prices. But this change is not due to the food group and must be looked for elsewhere. An examination shows upward movements in cloths and clothing and in metals and implements. In the former the movement is not general, being most noticeable in the leather group. Nor was the advance in price long sustained, for July, 1896, approximates the former level. In the group "Metals and implements," the changes are most conspicuous in the distinctively iron products, such as pig iron, steel, and especially wire nails. Doorknobs, copper, locks, quicksilver, and spelter also felt the upward movement in a slight degree, but other articles in the group did not advance. From July, 1896, to July, 1897, the course

of prices is slightly downward, and the minimum point in the period under consideration is reached. The subsequent movement of prices, the rise to October, 1897, the comparatively stationary position until October, 1898, and the following notable rise in prices have already been alluded to.

It is to be noted that in the general upward movement of prices, since October, 1898, food products have played an inconspicuous part. On the contrary, changes have been very rapid in metals and implements, which reached in July, 1899, a higher point than at any time during the period, not excepting the initial point, January, 1890. Lumber and building materials had also risen to a point corresponding to the average upon which the relative prices were based.

A study of the individual groups reveals the greatest fluctuations in food. The cause of these fluctuations has already been noted, namely, the existence, for a group of articles, of prices varying according to the seasons. As a rule, the July prices are lower than those of other periods during the year. The advance depends, apparently, upon the character of the season. It occurs in the fall of the year, and is sometimes quite marked by October 1, but in other cases does not conspicuously appear until January prices are noted. It is probable in such cases that the real change takes place in November or December following comparatively mild weather in September and early October. The effect of these changes on the course of prices can best be seen by eliminating from the food group the distinctively seasonal articles, beans, butter, cheese, and eggs. The results of such a subtraction are given in the following table:

AVERAGE RELATIVE PRICES OF ENTIRE FOOD GROUP AND OF FOOD GROUP EXCLUDING BEANS, BUTTER, CHEESE, AND EGGS, JANUARY, 1890, TO JULY, 1899.

Date.	Average relative prices.			Date.	Average relative prices.		
	Entire food group.	Beans, butter, cheese, and eggs.	Food group excluding beans, butter, cheese, and eggs.		Entire food group.	Beans, butter, cheese, and eggs.	Food group excluding beans, butter, cheese, and eggs.
January, 1890	99.2	101.9	98.7	January, 1895	90.3	107.0	87.5
April, 1890	97.8	88.9	99.3	April, 1895	91.5	95.1	90.9
July, 1890	95.5	76.8	98.5	July, 1895	87.9	83.8	88.6
October, 1890	103.3	105.2	103.9	October, 1895	85.8	84.9	86.0
January, 1891	103.0	117.4	100.5	January, 1896	84.4	96.2	82.5
April, 1891	104.8	116.4	102.9	April, 1896	80.2	75.7	80.9
July, 1891	99.6	91.7	101.0	July, 1896	75.8	63.6	77.9
October, 1891	101.5	104.5	101.0	October, 1896	78.9	77.9	79.1
January, 1892	98.1	116.7	95.0	January, 1897	79.6	85.3	78.6
April, 1892	93.3	97.8	92.5	April, 1897	78.2	76.8	78.2
July, 1892	94.8	89.7	95.7	July, 1897	76.0	60.2	78.6
October, 1892	97.7	105.5	96.4	October, 1897	83.1	81.9	83.3
January, 1893	103.8	126.6	100.0	January, 1898	83.4	91.0	82.1
April, 1893	102.6	110.1	101.3	April, 1898	82.9	72.1	84.7
July, 1893	96.1	90.8	97.0	July, 1898	83.2	68.5	85.6
October, 1893	101.0	112.4	99.1	October, 1898	84.2	83.1	84.4
January, 1894	94.2	112.0	91.2	January, 1899	86.6	88.9	86.2
April, 1894	87.8	89.2	87.5	April, 1899	87.1	88.2	86.9
July, 1894	87.5	82.6	88.3	July, 1899	85.9	78.7	87.1
October, 1894	95.3	101.1	92.0				

Another method of showing the effect of these seasonal changes is by noting the variation of the quarterly prices from the average of the year. In order to make this method clear, the groups "Food," which shows marked seasonal changes, and "Metals and implements," in which seasonal variations have little influence, have been contrasted in the table following. The average variation is the average of the differences between the quarterly prices and the average price for the year.

AVERAGE VARIATION FROM AVERAGE OF YEAR IN RELATIVE PRICE OF FOOD AND OF METALS AND IMPLEMENTS, 1890 TO 1898.

Year.	Food.					Metals and implements.				
	Average relative price.	Average variation.		Minimum relative price.		Average relative price.	Average variation.		Minimum relative price..	
		Points.	Per cent.	Month.	Amount.		Points.	Per cent.	Month.	Amount.
1890	99.0	2.30	2.32	July ..	96.5	105.3	0.93	0.88	Apr...	103.5
1891	102.2	1.68	1.64	July ..	99.6	96.2	1.03	1.69	Oct ...	94.0
1892	96.0	1.93	2.01	Apr...	98.3	92.4	.90	.97	Oct ...	90.7
1893	100.9	2.38	2.36	July ..	96.1	87.6	1.58	1.80	Oct ...	84.4
1894	90.7	3.05	3.86	July ..	87.5	79.3	.70	.88	Oct ...	78.2
1895	88.9	2.03	2.23	Oct...	85.8	81.5	5.45	6.69	Apr...	75.9
1896	79.8	2.48	3.11	July ..	75.8	84.6	.90	1.06	(a)	83.7
1897	79.2	2.13	2.69	July ..	76.0	79.2	1.13	1.43	July..	77.4
1898	83.4	.38	.46	Apr...	82.9	80.5	.98	1.22	Jan...	79.4

a January and October.

In this table the average variation, except in the years which show notable changes in prices, is much greater in the group "Food" than in the group "Metals and implements." While the minimum point in the food group is usually July, in the other group October usually occupies this place until the upward movement begins, which tends to transfer the minimum to the beginning of the year.

Another group which is somewhat conspicuous for its variations is the group "Drugs and chemicals." This is relatively a small group, and changes in the price of one commodity exercise a marked influence upon the average for the group. An examination of the detailed table shows notable changes first in one article and then in another, notably in brimstone, glycerin, opium, and sulphuric acid. As these changes are not coincident, we have in the aggregate result frequent variations. Thus, in this group the minimum price is found in October, 1895, when low prices prevailed for all the articles. Otherwise the course of prices, even in this small group, follows fairly well the general average.

Thus far attention has been directed to the course of prices as indicated by the simple average of the various relative prices. It has been seen that individual groups, and even individual articles, may interrupt or modify the general tendency. Any system of weighting the articles will accentuate or diminish these tendencies, as the case may be. It is obvious that the food group would, in a weighted

average which measured articles according to their importance, have greater influence upon the aggregate result than it has in the simple average, and that if such a weighted average were made for each of the quarterly periods it would show a greater variation than the simple average. It may be doubted whether such a weighted average would any more accurately represent the price changes in their relation to the purchases of the community than the simple average. The fluctuations which are here referred to are those produced by the seasonal variations in prices of certain food products. Now, it may well be doubted whether these changes represent in fact increased or decreased costs in family expenditure in anything like the same ratio as the changes in price. The householder is able, and does, in fact, meet these changes to a certain extent through decreased or increased consumption of the commodities in question. It has not, therefore, been deemed advisable to construct a weighted average upon the basis of the quarterly quotations.

The value of a weighted average in computations of relative prices has of late been questioned. It has been noted that the weighted average and the simple average, applied to the same figures, show approximately the same results. This is not to be contested. It would, however, be more accurate to say that where the price movement is downward the weighted average is apt to record a higher price than the simple average, and that where the price movement is upward the weighted average records, in the main, lower prices than the simple average. This is due to the fact that in all weighted averages food products assume a larger influence than in the simple averages, and that food products, taken in the aggregate, fluctuate in price from year to year less noticeably than other commodities. The above statements are true with regard to the comparative inertia of food products only under the proviso that the same influences are operating upon the prices of these commodities as upon those of other classes of goods. The Aldrich report furnished a conspicuous instance of the contrary situation in the period from 1840 to 1860. Food products were at that time increased in price and staple articles generally shared in that movement. On the other hand, the transformation of industry, for which that period is conspicuous, brought about a notable fall in the prices of manufactured articles. While, therefore, the simple average of the prices quoted in that report showed a fall in price up to 1860, the weighted average, constructed, it is true, by crude methods, showed a contrary tendency.

It has, however, been observed that during the briefer period now under discussion, and for the prices included in the present investigation, the tendencies of the individual series are fairly uniform with those of the average of all. It would, therefore, be expected that the weighted average would vary little from the simple average. Though,

recalling the analysis of the movement in prices of the several groups, a divergence would be expected between the simple and the weighted average in those cases where the food group was conspicuously high, as in January, 1893. Otherwise the weighted average will conform fairly well with the simple average. It is obvious that if the prices of a group of articles stand relatively to those of a certain date at 85, no system of combination or of weights can bring another result than 85. If, now, the series of articles show an average of 85 and a range in the individual cases between 80 and 90, no system of averaging can take the price above 90 or below 80. While the range of prices in the present investigation is considerably wider than in this illustration, yet the table on page 264 reveals a concentration of the individual prices about this average. Unless, therefore, in a system of weights extreme importance is attached to either the maximum or the minimum prices, the average price will doubtless be very close to the simple average. An examination of the table on page 264 will show that at the date, January, 1899, the articles with the minimum prices, with the exception of coffee, were not conspicuously important in household consumption, and that the low price of coffee and a few articles of clothing would be quite neutralized by high prices for meats and boots and shoes. Thus it may be said that the principal advantage of averaging the articles according to importance is to confirm the results of the simple average.

The words "average according to importance" have thus far been used somewhat vaguely, but now an accurate measure of this importance should be obtained. In general, the phrase is not misleading. The importance of an article has obviously something to do with the frequency and volume of its sales. Two methods for measuring the volume of the sales appear to be open. The one takes as its basis the national consumption of the articles in question. In theory this method is irreproachable. In practice, however, statisticians are well aware that accurate figures with regard to the consumption of commodities are extremely difficult to obtain, and that a fair measure of accuracy can only be reached in a very few cases. If the number of articles included in the computations be small, this method can perhaps be applied with success, but it fails for a larger number of articles, such as the present investigation includes. The second method endeavors to ascertain the importance of articles by the part which they play in household expenditure. This gives an approximate idea of the significance of those articles which are purchased directly for household consumption, and is the only one which can be applied to a large number of articles. On the other hand, it must be admitted that certain articles which indirectly affect household expenditures, such as iron products of all kinds, affecting costs of construction of railways, buildings, etc., can not be carefully measured. In a similar way the costs of lumber

and building materials, which ultimately must affect the rents of houses to some extent, can not be accurately measured. The adjustment of actual prices to their importance in household expenditure can be no more than a rough approximation. It has, however, this significance, that it gives to the important articles, food and clothing, a proportionate influence in the result.

In the Aldrich report there was used as a basis of comparison a table giving family expenses of 2,561 normal families, selected from the larger number, which were contained in the reports of the Department of Labor upon the cost of production. It differs from Table XLIV of the Seventh Annual Report of the Department by the omission of one family which was not included in the manuscript copy of that table, which was at the disposal of the Aldrich committee. The distribution of expenditure in these families in proportional parts of 10,000 was as follows:

Rent	1,506
Food	4,103
Fuel.....	500
Clothing.....	1,531
Light.....	90
All other purposes	2,270
Total	10,000

This table gives only the main groups of family expenditure. To ascertain more accurately the expenditure within these groups, the Department of Labor undertook a special investigation which covered 232 families. The results of this investigation are given in the following table:

ANNUAL EXPENDITURE OF 232 FAMILIES FOR CERTAIN PURPOSES.

FOOD.

Group.	Total.	Per family.	Proportion of 10,000.
Beef	\$9,501.76	\$40.95	1,561
Hog products.....	3,990.03	17.20	635
Meat (not specified).....	3,735.09	16.10	611
Poultry.....	645.35	2.78	106
Fish.....	690.26	2.97	113
Eggs.....	1,920.24	8.28	316
Milk.....	3,484.04	15.02	572
Butter.....	6,737.67	29.04	1,107
Cheese.....	401.65	1.73	65
Tea.....	1,046.35	4.51	172
Coffee.....	3,242.92	13.97	532
Sugar.....	3,872.69	16.69	625
Molasses.....	333.53	1.44	55
Lard.....	1,222.19	5.27	201
Flour and meal.....	6,223.65	28.62	1,022
Bread.....	2,648.86	11.42	436
Rice.....	144.09	.62	21
Fruit.....	2,640.84	8.80	332
Potatoes.....	2,764.49	11.92	451
Vegetables (not specified).....	2,910.88	12.55	479
Vinegar, pickles, and condiments.....	430.37	1.86	71
Food (not specified).....	2,894.51	12.47	476
Total	60,881.48	262.42	10,000

ANNUAL EXPENDITURE OF 232 FAMILIES FOR CERTAIN PURPOSES—Concluded.

CLOTHING.

Group.	Total.	Per family.	Proportion of 10,000.
Husband:			
Coats, vests, trousers, overcoats	\$3,271.51	\$14.11	1,407
Boots and shoes	1,093.65	4.71	470
Hats	401.72	1.73	173
Underclothes	637.23	2.75	274
Shirts	346.47	1.49	149
Miscellaneous	2,091.41	9.01	898
Total	7,841.99	33.80	3,371
Wife:			
Dresses, cloaks, shawls	1,915.78	8.26	824
Boots and shoes	826.60	3.56	354
Underclothes	591.92	2.55	254
Miscellaneous	1,946.56	8.39	836
Total	5,280.86	22.76	2,268
Children:			
Coats, etc	1,415.50	6.10	608
Dresses, etc	1,527.72	6.59	657
Boots and shoes	1,799.66	7.76	774
Hats	645.94	2.78	277
Underclothes	686.98	2.96	295
Shirts	71.29	.31	31
Miscellaneous	4,003.42	17.25	1,719
Total	10,150.51	43.75	4,361
Husband	7,841.99	33.80	3,371
Wife	5,280.86	22.76	2,268
Children	10,150.51	43.75	4,361
Total	23,273.36	100.31	10,000

MISCELLANEOUS PURPOSES.

[All expenditures except for food, clothing, rent, lighting, and fuel are here shown.]

Group.	Total.	Per family.	Proportion of 2,270. (a)
Taxes	\$1,936.07	\$8.34	115
Insurance	2,546.74	10.99	151
Organizations	1,118.59	1.82	66
Religion	1,556.20	6.71	92
Charity	411.72	1.77	24
Furniture and utensils	4,258.27	18.36	253
Books and newspapers	1,686.90	7.27	100
Amusements	1,550.20	6.68	92
Intoxicating liquors	2,816.15	12.14	168
Tobacco	1,789.77	7.71	197
Illness and death	5,650.56	24.36	335
Other purposes	12,908.90	55.64	767
Total	38,230.67	164.78	2,270

a This is the proportion of this class of expenditure in the total of 10,000.

The mode of applying prices to the proportions which result from these tables is fully set forth in the Aldrich report and can only be briefly indicated here. The prices given in this report are not for exactly the same articles as those included in the budgets of the Aldrich report, and there must, therefore, be a certain adjustment of the present prices to those conditions. In some cases it has been necessary to

group the commodities to suit the heads of the tables, grouping those under food as follows:

FORMATION OF GROUP RATIOS—FOOD.

Beef—	Flour and meal—
Beef on the hoof.	2 wheat flour.
Beef.	1 rye flour.
Hog products—	1 corn meal.
Bacon.	Vinegar and condiments—
Ham.	Salt.
Meat not specified—	Nutmegs.
2 beef, as above.	Pepper.
2 hog products, as above.	
1 meat, salt.	
1 mutton.	

This grouping shows the method of finding relative prices for various groups of articles in the food table below. For instance, the relative price for beef is found by taking the average of the two items, beef on the hoof and beef, and for hog products, the average of bacon and ham. In finding the average for flour and meal, wheat flour is taken twice on account of its greater importance, the other two items being rye flour and corn meal.

In applying this grouping to the actual figures, it will be noted that the relative price of meat not specified has been considered equal to the average of all meats. The relative price of food not specified has been considered equal to the average of all food except meat. The table covers 87.89 per cent of the total expenditure for food as indicated in the following illustration for January, 1899:

RELATIVE PRICES OF FOOD, JANUARY, 1899, MEASURED BY ITS CONSUMPTION.

	Group.	Importance.	Index.	Result.
1	Beef	1,561	112.1	174,968.1
2	Hog products	655	85.0	55,675.0
3	Meat not specified	614	93.2	57,224.8
	Total meat	2,830	101.7	287,867.9
4	Fish	113	90.7	10,249.1
5	Eggs	816	96.9	80,620.4
6	Milk	572	96.7	55,312.4
7	Butter	1,107	87.5	96,862.5
8	Cheese	66	109.6	7,233.6
9	Coffee	532	41.6	22,078.0
10	Sugar	636	96.5	61,374.0
11	Molasses	55	96.8	5,324.0
12	Lard	201	88.3	17,748.3
13	Flour and meal	1,022	73.7	75,321.4
14	Bread	436	97.8	42,640.8
15	Rice	24	98.7	2,368.8
16	Fruit	332	76.5	25,398.0
17	Vinegar and condiments	71	84.3	5,985.3
	Total (except meat)	5,483	83.6	458,516.6
18	Food not specified	476	83.6	89,793.6
	Meat	2,830	101.7	287,867.9
	Grand total	8,789	89.5	786,198.1

The adjustment of the clothing prices to the schedule has been made in the following manner:

FORMATION OF GROUP RATIOS—CLOTHING

Coats, etc.:

Suitings.

Boots and shoes:

Boots and shoes.

Leather.

Dresses, etc.:

2 women's dress goods.

1 shawls.

Hats, underclothes, shirts, miscellaneous:

General average of cloths and clothing after deducting bags, boots and shoes, leather, suitings, shawls, women's dress goods, carpets, cotton, and wool.

The method of applying the ratios thus found to the actual proportions of expenditure is similar to that used in the case of food, and is illustrated in the following example:

RELATIVE PRICES OF CLOTHING, JANUARY, 1899, MEASURED BY CONSUMPTION.

Group.	Importance.	Index.	Result.
Coats, vests, trousers, overcoats (husband and children).....	2,015	73.5	148,102.5
Dresses, cloaks, shawls (wife and children).....	1,481	82.4	122,034.4
Boots and shoes (husband, wife, and children).....	1,598	107.7	172,101.6
Other clothing (husband, wife, and children).....	4,906	76.4	374,818.4
	10,000	81.7	817,059.9

Under miscellaneous expenditures, which include all items except rent, food, fuel, lighting, and clothing, it appears by reference to the table on page 274 that for one group only, "Furniture and utensils," was there a direct change in the relative price. The relative prices for the other groups are assumed, as in the Aldrich report, to have remained unchanged, that is at 100, with the exception of the group "Other purposes," which is considered to have been affected, in part at least, by price changes. This group includes a great variety of articles not accounted for under other heads, as well as other expenditures which are not affected by price changes. It has been assumed that one-half the expenditures for other purposes were for the purchase of the commodities not otherwise accounted for, and the index or relative price for this part of the group has been found by taking the average relative price of these commodities, which are as follows: Cornstarch, bags, carpets, cotton, wool, matches, and all the articles in the groups "Metals and implements," "Lumber and building materials," "Drugs and chemicals," and "Miscellaneous." The relative price for the other half of the expenditures for other purposes has been assumed to remain unchanged.

Having thus obtained relative prices for the principal groups, they can now be applied to the table following, which gives the relative importance of these groups in the total. In so doing it has been assumed that the index or average relative price for food, embracing as it does by far the greater force of the food consumption, was sufficiently characteristic to stand for the whole group. In the computations it has been assumed, in order to follow the practice of the Aldrich report, that those portions of expenditure not directly affected by price changes have remained uniform. This assumption has been criticised, and it must be confessed that as applied to the longer period covered by the Aldrich report such criticism is justifiable, but it is less cogent in its application to the shorter period now under consideration. It is, however, a supposititious element which is unnecessary, and it has only been repeated here for the purpose of furnishing a parallel to the computations made in the Aldrich report. In the family budgets it has been possible to apply price changes to 68.6 per cent of the aggregate expenditure, which seems to be directly affected by such price changes as it has been possible to measure. A statement, which applies exclusively to this portion of expenditure which does not involve any assumption as to the other expenditure whatever, has been added to the computations, and is therefore the true weighted average according to expenditure. The method of combining the figures is given in the following illustration, and the results of various computations in the table which follows:

RELATIVE PRICES OF ALL ARTICLES, JANUARY, 1899, MEASURED BY CONSUMPTION.

	Group.	Importance.	Index.	Result.
1	Rent	1,506	100.0	150,800.0
2	Food	4,103	89.5	367,218.5
3	Fuel	500	81.3	40,650.0
4	Lighting	90	94.7	8,523.0
5	Clothing	1,531	81.7	125,082.7
6	Taxes	115	100.0	11,500.0
7	Insurance	151	100.0	15,100.0
8	Organizations	66	100.0	6,600.0
9	Religion	92	100.0	9,200.0
10	Charity	24	100.0	2,400.0
11	Furniture and utensils	253	79.5	20,113.5
12	Books	100	100.0	10,000.0
13	Amusements	92	100.0	9,200.0
14	Liquor	168	100.0	16,800.0
15	Tobacco	107	100.0	10,700.0
16	Illness and death	335	100.0	33,500.0
17	Other purposes	384	100.0	88,400.0
		383	89.1	31,125.3
	Total	10,000	91.0	909,713.0
	Less items assumed to be invariable	3,140	100.0	314,000.0
		6,860	86.8	595,713.0

RELATIVE PRICES IN JANUARY OF EACH YEAR, 1890 TO 1899, FOR ALL ARTICLES GROUPED BY DIFFERENT METHODS.

Date.	All articles simply averaged.	All articles averaged according to importance, certain expenditures being considered uniform.	All articles averaged according to importance, comprising 68.6 per cent of total expenditure.
January, 1890	102.0	100.1	100.2
January, 1891	100.6	102.2	103.2
January, 1892	96.5	100.0	100.1
January, 1893	97.2	103.4	105.0
January, 1894	89.6	97.5	96.4
January, 1895	84.7	93.5	90.5
January, 1896	85.2	92.8	89.5
January, 1897	82.0	90.3	85.9
January, 1898	83.3	91.0	86.8
January, 1899	86.5	91.0	86.8

This table confirms what has already been said as to the comparative identity of the first and last series. The changes in price which the final column records are, in the main, in the same direction as those which the first column records. The only exceptions to this statement are in January, 1891, and January, 1893, when the food products, and in 1893, particularly the meat products, were high in price. It will be noted, furthermore, that as a rule the figures in the final column are superior to those in the first column, and it is undoubtedly due to the somewhat greater emphasis laid upon food in the average according to importance.

It only remains now to consider what is the relation between the results which have been set forth here and the results of the former investigation. At the outset of the investigation it was hoped that the figures would furnish substantially a direct continuation of the former investigation. This hope has not been realized to the full extent. It is evident that if the present investigation covered the prices of all the articles of the former report secured from identical sources relative prices could then be calculated upon the basis of 1860, as in the former report, and would form a continuous series with that report. But it was not possible in all cases, as already explained, (1) to secure the same sources of information, as many changes in business had naturally occurred, and (2) even when the same sources were available, it was in a considerable number of cases found that the identical articles for which prices were given in the former report were no longer sold.

With regard to prices obtained from new sources or for articles which were practically identical, except as to a slight difference in grade, it is believed that differences in prices which may be found on dates which are common to the two investigations may be ignored. For while it is true that two series of relative prices for an article of the same description obtained from different sources or differing

slightly in quality might not exactly coincide, yet if a large number of articles be taken representing the classes covered by these investigations, it must be assumed that an average of their relative prices would accurately represent the tendency of prices in general to rise or fall, for such an assumption is the basis of all investigations into the course of prices. It may be assumed, therefore, that if only those articles or groups of articles which are common to the two investigations, 90 in number, were taken, and the earlier series could be extended to July, 1899, and the later series carried back to January, 1860, the average relative prices for the entire number of articles calculated upon the basis of 1860 in the two series would be identical, or substantially so.

The average relative price for January, 1891, upon the basis of 1860, obtained in the former investigation by the simple average, was 92.2. This, however, included a considerable number of articles not covered in the present inquiry and the present inquiry on the other hand includes 9 articles, viz, baked beans, bags, boots and shoes, cotton thread, felts, gingham, women's dress goods, steel billets, and steel rails, not in the former. But 90 articles or groups of articles were covered by both reports. If an average be made for January, 1891, for these 90 articles, using the figures of the Aldrich report, a relative price on the basis of 1860 of 96.6 is shown, while in the present investigation the 99 articles show on the basis here used a relative price of 100.6, which is changed to 100.8 when only the 90 are used. In order to express the relative prices of the present investigation in terms of the 1860 prices, and at the same time make them comparable with the Aldrich report, it is only necessary to take out the 9 extra articles and make appropriate changes in the present series, so that each new figure bears the same relation to 96.6 as it now bears to 100.8. The results of such calculations are as follows, the first column showing the average relative prices of 90 articles or groups of articles according to the present investigation, and the second column those averages expressed in terms of 1860 prices:

AVERAGE RELATIVE PRICES AS SHOWN BY THE PRESENT INVESTIGATION OF THE 90 ARTICLES COMMON TO THE ALDRICH REPORT AND THE PRESENT INVESTIGATION FOR JANUARY OF EACH YEAR, 1890 TO 1899.

Date.	Average relative prices of 90 articles.	
	According to present investigation.	In terms of 1860 prices.
January, 1890.....	101.7	97.5
January, 1891.....	100.8	96.6
January, 1892.....	96.4	92.4
January, 1893.....	97.3	93.2
January, 1894.....	89.8	86.1
January, 1895.....	85.1	81.5
January, 1896.....	85.1	81.5
January, 1897.....	82.0	78.6
January, 1898.....	83.9	80.4
January, 1899.....	87.2	83.6

These figures then express the results of the present inquiry in terms of the prices of 1860, but they do not, it will be observed, furnish a complete series continuous with the figures of the Aldrich report. Such a continuous series could be obtained if the articles which are identical to the two investigations were selected from the figures of the Aldrich report and a new series of relative prices for the whole period, 1860 to 1891, calculated. The advantage of such a calculation would be that it would enable us to compare relative prices since 1891 with dates lying between 1860 and 1891. It would exhibit no new features with regard to the course of prices, the common object of both investigations, and might create confusion by establishing two series of relative prices, differing probably in minor details, for the years 1860 to 1891. It seems, on the whole, better that the two investigations should stand on separate bases, each exhibiting the course of prices during its own period. A continuous series of relative prices for a long period of time, except for a very restricted number of articles, is an ideal which is impossible of realization in practice. From time to time the lists of articles must be revised because of the changing character of our consumption. New commodities, on account of these changes, displace the older ones and become the staples of trade and representative of prices. The holding to the old commodities after they have ceased to be distinctive would be an obvious error. Whenever, therefore, an investigation into prices includes any considerable number of articles, a revision of the list becomes imperative. A series of investigations, each of which should be characteristic for the period to which it relates, seems best, therefore, rather than a single list extending over a very long period, which loses in accuracy any advantages which it may appear to gain from uniformity.

The table following gives in detail the wholesale prices of various commodities at the beginning of each quarterly period from January, 1890, to July, 1899.

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899.

FOOD.

BAKED BEANS: Old South brand.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$1.30 per dozen cans.	Apr., 1893	\$1.35 per dozen cans.	July, 1896	\$1.10 per dozen cans.
Apr., 1890	1.30 " " "	July, 1893	1.30 " " "	Oct., 1896	1.10 " " "
July, 1890	1.20 " " "	Oct., 1893	1.30 " " "	Jan., 1897	1.10 " " "
Oct., 1890	1.25 " " "	Jan., 1894	1.30 " " "	Apr., 1897	1.10 " " "
Jan., 1891	1.35 " " "	Apr., 1894	1.25 " " "	July, 1897	1.10 " " "
Apr., 1891	1.35 " " "	July, 1894	1.25 " " "	Oct., 1897	1.10 " " "
July, 1891	1.35 " " "	Oct., 1894	1.25 " " "	Jan., 1898	1.00 " " "
Oct., 1891	1.25 " " "	Jan., 1895	1.25 " " "	Apr., 1898	1.00 " " "
Jan., 1892	1.25 " " "	Apr., 1895	1.25 " " "	July, 1898	1.00 " " "
Apr., 1892	1.25 " " "	July, 1895	1.15 " " "	Oct., 1898	1.00 " " "
July, 1892	1.25 " " "	Oct., 1895	1.15 " " "	Jan., 1899	1.00 " " "
Oct., 1892	1.35 " " "	Jan., 1896	1.15 " " "	Apr., 1899	1.10 " " "
Jan., 1893	1.35 " " "	Apr., 1896	1.15 " " "	July, 1899	1.10 " " "

BEANS: Pea, York State, marrow, choice, H. P.

Jan., 1890	\$1.80 per bush.	Apr., 1893	\$2.10 per bush.	July, 1896	\$1.00 @ 1.05 per bush.
Apr., 1890	1.75 @ 1.80 " "	July, 1893	2.00 " " "	Oct., 1896	1.15 @ 1.20 " "
July, 1890	1.90 " " "	Oct., 1893	1.90 " " "	Jan., 1897	.95 " " "
Oct., 1890	2.50 @ 2.55 " "	Jan., 1894	1.75 @ 1.80 " "	Apr., 1897	.85 " " "
Jan., 1891	2.15 @ 2.20 " "	Apr., 1894	1.67½ " " "	July, 1897	.85 " " "
Apr., 1891	2.20 " " "	July, 1894	1.95 " " "	Oct., 1897	1.10 " " "
July, 1891	2.35 @ 2.40 " "	Oct., 1894	1.70 @ 1.75 " "	Jan., 1898	1.10 @ 1.15 " "
Oct., 1891	2.00 @ 2.10 " "	Jan., 1895	1.70 " " "	Apr., 1898	1.05 @ 1.10 " "
Jan., 1892	1.85 " " "	Apr., 1895	2.20 " " "	July, 1898	1.15 @ 1.20 " "
Apr., 1892	1.75 @ 1.80 " "	July, 1895	2.15 " " "	Oct., 1898	1.25 " " "
July, 1892	1.85 " " "	Oct., 1895	1.50 " " "	Jan., 1899	1.25 @ 1.30 " "
Oct., 1892	2.00 " " "	Jan., 1896	1.30 " " "	Apr., 1899	1.35 " " "
Jan., 1893	1.95 " " "	Apr., 1896	1.15 " " "	July, 1899	1.32½ @ 1.35 " "

BREAD: Boston crackers.

Jan., 1890	\$0.0405 per pound.	Apr., 1893	\$0.0450 per pound.	July, 1896	\$0.0405 per pound.
Apr., 1890	.0405 " " "	July, 1893	.0405 " " "	Oct., 1896	.0360 " " "
July, 1890	.0450 " " "	Oct., 1893	.0405 " " "	Jan., 1897	.0450 " " "
Oct., 1890	.0450 " " "	Jan., 1894	.0450 " " "	Apr., 1897	.0405 " " "
Jan., 1891	.0450 " " "	Apr., 1894	.0450 " " "	July, 1897	.0360 " " "
Apr., 1891	.0450 " " "	July, 1894	.0450 " " "	Oct., 1897	.0360 " " "
July, 1891	.0405 " " "	Oct., 1894	.0405 " " "	Jan., 1898	.0360 " " "
Oct., 1891	.0495 " " "	Jan., 1895	.0360 " " "	Apr., 1898	.0495 " " "
Jan., 1892	.0450 " " "	Apr., 1895	.0395 " " "	July, 1898	.0495 " " "
Apr., 1892	.0450 " " "	July, 1895	.0395 " " "	Oct., 1898	.0405 " " "
July, 1892	.0450 " " "	Oct., 1895	.0395 " " "	Jan., 1899	.0405 " " "
Oct., 1892	.0450 " " "	Jan., 1896	.0360 " " "	Apr., 1899	.0405 " " "
Jan., 1893	.0450 " " "	Apr., 1896	.0395 " " "	July, 1899	.0405 " " "

BREAD: Navy ship bread.

Jan., 1890	\$0.0350 per pound.	Apr., 1893	\$0.0300 per pound.	July, 1896	\$0.0300 per pound.
Apr., 1890	.0350 " " "	July, 1893	.0300 " " "	Oct., 1896	.0300 " " "
July, 1890	.0350 " " "	Oct., 1893	.0300 " " "	Jan., 1897	.0300 " " "
Oct., 1890	.0350 " " "	Jan., 1894	.0300 " " "	Apr., 1897	.0300 " " "
Jan., 1891	.0350 " " "	Apr., 1894	.0300 " " "	July, 1897	.0300 " " "
Apr., 1891	.0350 " " "	July, 1894	.0300 " " "	Oct., 1897	.0300 " " "
July, 1891	.0350 " " "	Oct., 1894	.0300 " " "	Jan., 1898	.0300 " " "
Oct., 1891	.0400 " " "	Jan., 1895	.0300 " " "	Apr., 1898	.0350 " " "
Jan., 1892	.0350 " " "	Apr., 1895	.0300 " " "	July, 1898	.0400 " " "
Apr., 1892	.0350 " " "	July, 1895	.0350 " " "	Oct., 1898	.0360 " " "
July, 1892	.0300 " " "	Oct., 1895	.0300 " " "	Jan., 1899	.0360 " " "
Oct., 1892	.0300 " " "	Jan., 1896	.0300 " " "	Apr., 1899	.0360 " " "
Jan., 1893	.0350 " " "	Apr., 1896	.0300 " " "	July, 1899	.0360 " " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

FOOD—Continued.

BREAD: Oyster crackers.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.0540 per pound.	Apr., 1893	\$0.0540 per pound.	July, 1896	\$0.0450 per pound.
Apr., 1890	.0540 " "	July, 1893	.0540 " "	Oct., 1896	.0450 " "
July, 1890	.0540 " "	Oct., 1893	.0540 " "	Jan., 1897	.0540 " "
Oct., 1890	.0540 " "	Jan., 1894	.0540 " "	Apr., 1897	.0495 " "
Jan., 1891	.0540 " "	Apr., 1894	.0540 " "	July, 1897	.0450 " "
Apr., 1891	.0540 " "	July, 1894	.0540 " "	Oct., 1897	.0495 " "
July, 1891	.0540 " "	Oct., 1894	.0450 " "	Jan., 1898	.0450 " "
Oct., 1891	.0630 " "	Jan., 1895	.0495 " "	Apr., 1898	.0540 " "
Jan., 1892	.0540 " "	Apr., 1895	.0495 " "	July, 1898	.0540 " "
Apr., 1892	.0540 " "	July, 1895	.0495 " "	Oct., 1898	.0540 " "
July, 1892	.0540 " "	Oct., 1895	.0495 " "	Jan., 1899	.0540 " "
Oct., 1892	.0540 " "	Jan., 1896	.0495 " "	Apr., 1899	.0540 " "
Jan., 1893	.0540 " "	Apr., 1896	.0450 " "	July, 1899	.0540 " "

BREAD: Soda crackers.

Jan., 1890	\$0.0540 per pound.	Apr., 1893	\$0.0540 per pound.	July, 1896	\$0.0495 per pound.
Apr., 1890	.0540 " "	July, 1893	.0540 " "	Oct., 1896	.0495 " "
July, 1890	.0540 " "	Oct., 1893	.0540 " "	Jan., 1897	.0540 " "
Oct., 1890	.0540 " "	Jan., 1894	.0540 " "	Apr., 1897	.0495 " "
Jan., 1891	.0540 " "	Apr., 1894	.0540 " "	July, 1897	.0495 " "
Apr., 1891	.0540 " "	July, 1894	.0540 " "	Oct., 1897	.0495 " "
July, 1891	.0540 " "	Oct., 1894	.0495 " "	Jan., 1898	.0495 " "
Oct., 1891	.0540 " "	Jan., 1895	.0495 " "	Apr., 1898	.0495 " "
Jan., 1892	.0540 " "	Apr., 1895	.0495 " "	July, 1898	.0585 " "
Apr., 1892	.0540 " "	July, 1895	.0540 " "	Oct., 1898	.0540 " "
July, 1892	.0540 " "	Oct., 1895	.0495 " "	Jan., 1899	.0540 " "
Oct., 1892	.0540 " "	Jan., 1896	.0495 " "	Apr., 1899	.0540 " "
Jan., 1893	.0540 " "	Apr., 1896	.0495 " "	July, 1899	.0540 " "

BUTTER: Creamery, Western, extra, firsts.

Jan., 1890	\$0.20 @ 0.23 per lb.	Apr., 1893	\$0.27 @ 0.28 per lb.	July, 1896	\$0.14 @ 0.14½ per lb.
Apr., 1890	.18 @ .19 " "	July, 1893	.20 " " " "	Oct., 1896	.14 @ .15 " "
July, 1890	.13 @ .14 " "	Oct., 1893	.26 @ .27 " "	Jan., 1897	.18 " " " "
Oct., 1890	.19 @ .21 " "	Jan., 1894	.25 @ .26 " "	Apr., 1897	.19 @ .20 " "
Jan., 1891	.23 @ .24 " "	Apr., 1894	.19 @ .20 " "	July, 1897	.14 @ .15 " "
Apr., 1891	.25 @ .26 " "	July, 1894	.17 " " " "	Oct., 1897	.19 " " " "
July, 1891	.17 @ .17½ " "	Oct., 1894	.22 @ .23 " "	Jan., 1898	.20 " " " "
Oct., 1891	.22 @ .23 " "	Jan., 1895	.22 @ .23 " "	Apr., 1898	.20 @ .21 " "
Jan., 1892	.26 @ .27 " "	Apr., 1895	.17 @ .19 " "	July, 1898	.16 " " " "
Apr., 1892	.21 @ .22 " "	July, 1895	.16 @ .17 " "	Oct., 1898	.18 @ .19 " "
July, 1892	.20 " " " "	Oct., 1895	.17 @ .19 " "	Jan., 1899	.17½ @ .18 " "
Oct., 1892	.22 @ .23 " "	Jan., 1896	.21 @ .22 " "	Apr., 1899	.19 @ .19½ " "
Jan., 1893	.28 @ .29 " "	Apr., 1896	.18 @ .19 " "	July, 1899	.17½ @ .18 " "

CHEESE: New York, extra.

Jan., 1890	\$0.10½ @ 0.10½ per lb.	Apr., 1893	\$0.11½ @ 0.06½ per lb.	July, 1896	\$0.07 @ 0.07½ per lb.
Apr., 1890	.11 " " " "	July, 1893	.08½ @ .09 " "	Oct., 1896	.09 @ .09½ " "
July, 1890	.07½ " " " "	Oct., 1893	.11 @ .11½ " "	Jan., 1897	.10½ @ .11 " "
Oct., 1890	.09 " " " "	Jan., 1894	.11½ " " " "	Apr., 1897	.12 @ .12½ " "
Jan., 1891	.09½ @ .10 " "	Apr., 1894	.12 @ .12½ " "	July, 1897	.07 @ .07½ " "
Apr., 1891	.12 " " " "	July, 1894	.08½ " " " "	Oct., 1897	.09 @ .09½ " "
July, 1891	.08 @ .08½ " "	Oct., 1894	.11 " " " "	Jan., 1898	.09 @ .09½ " "
Oct., 1891	.10 " " " "	Jan., 1895	.11½ @ .11½ " "	Apr., 1898	.08 @ .08½ " "
Jan., 1892	.11½ " " " "	Apr., 1895	.11½ @ .11½ " "	July, 1898	.07½ @ .07½ " "
Apr., 1892	.12½ " " " "	July, 1895	.08½ @ .08½ " "	Oct., 1898	.09 @ .09½ " "
July, 1892	.08½ " " " "	Oct., 1895	.08½ @ .09 " "	Jan., 1899	.10½ @ .11 " "
Oct., 1892	.10½ @ .10½ " "	Jan., 1896	.10 @ .10½ " "	Apr., 1899	.12 @ .12½ " "
Jan., 1893	.11½ @ .11½ " "	Apr., 1896	.09 @ .10 " "	July, 1899	.08½ @ .08½ " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY,
1899—Continued.

FOOD—Continued.

COFFEE: Rio, fair.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.19 per pound.	Apr., 1893	\$0.18½ per pound.	July, 1896	\$0.16½ per pound.
Apr., 1890	.19½ " "	July, 1893	.19 " "	Oct., 1896	.14½ " "
July, 1890	.19½ " "	Oct., 1893	.19½ " "	Jan., 1897	.14½ " "
Oct., 1890	.20½ " "	Jan., 1894	.19½ " "	Apr., 1897	.12 " "
Jan., 1891	.19 " "	Apr., 1894	.19½ " "	July, 1897	.12 " "
Apr., 1891	.19½ " "	July, 1894	.18½ " "	Oct., 1897	.10 " "
July, 1891	.18½ " "	Oct., 1894	.18½ " "	Jan., 1898	.08 " "
Oct., 1891	.16 " "	Jan., 1895	.18 " "	Apr., 1898	.07½ " "
Jan., 1892	.16½ " "	Apr., 1895	.19½ " "	July, 1898	.07½ " "
Apr., 1892	.17½ " "	July, 1895	.18 " "	Oct., 1898	.07½ " "
July, 1892	.17 " "	Oct., 1895	.18½ " "	Jan., 1899	.07½ " "
Oct., 1892	.18½ " "	Jan., 1896	.17½ " "	Apr., 1899	.07½ " "
Jan., 1893	.18½ " "	Apr., 1896	.17½ " "	July, 1899	.06½ " "

EGGS: Western, firsts, choice, fresh.

Jan., 1890	\$0.20 @ 0.21 per doz.	Apr., 1893	\$0.16½ @ 0.17 per doz.	July, 1896	\$0.11½ @ 0.12 per doz.
Apr., 1890	.12 " "	July, 1893	.15½ " "	Oct., 1896	.17 @ .17½ " "
July, 1890	.13 @ .14 " "	Oct., 1893	.22 " "	Jan., 1897	.18 @ .19 " "
Oct., 1890	.20 " "	Jan., 1894	.23 " "	Apr., 1897	.10 " "
Jan., 1891	.28 @ .29 " "	Apr., 1894	.11 " "	July, 1897	.10½ " "
Apr., 1891	.21 @ .22 " "	July, 1894	.12½ @ .13 " "	Oct., 1897	.16½ @ .17 " "
July, 1891	.16 @ .16½ " "	Oct., 1894	.19 " "	Jan., 1898	.22 @ .23 " "
Oct., 1891	.20 @ .21 " "	Jan., 1895	.23 " "	Apr., 1898	.10 " "
Jan., 1892	.25 " "	Apr., 1895	.18½ " "	July, 1898	.12 @ .12½ " "
Apr., 1892	.14½ " "	July, 1895	.12½ " "	Oct., 1898	.16½ @ .17 " "
July, 1892	.15½ @ .16 " "	Oct., 1895	.17 @ .17½ " "	Jan., 1899	.18 @ .19 " "
Oct., 1892	.21 " "	Jan., 1896	.21 @ .22 " "	Apr., 1899	.13 " "
Jan., 1893	.30 " "	Apr., 1896	.11½ " "	July, 1899	.14½ " "

FISH: Cod, entirely boned.

Jan., 1890	\$0.12 per pound.	Apr., 1893	\$0.11 per pound.	July, 1896	\$0.09½ per pound.
Apr., 1890	.12 " "	July, 1893	.11 " "	Oct., 1896	.09½ " "
July, 1890	.12 " "	Oct., 1893	.11 " "	Jan., 1897	.09½ " "
Oct., 1890	.12½ " "	Jan., 1894	.11 " "	Apr., 1897	.09½ " "
Jan., 1891	.12½ " "	Apr., 1894	.10 " "	July, 1897	.09½ " "
Apr., 1891	.13 " "	July, 1894	.10 " "	Oct., 1897	.10 " "
July, 1891	.12½ " "	Oct., 1894	.11 " "	Jan., 1898	.10 " "
Oct., 1891	.13 " "	Jan., 1895	.11 " "	Apr., 1898	.10 " "
Jan., 1892	.13 " "	Apr., 1895	.11 " "	July, 1898	.10 " "
Apr., 1892	.13 " "	July, 1895	.09 " "	Oct., 1898	.10 " "
July, 1892	.11 " "	Oct., 1895	.09 " "	Jan., 1899	.10 " "
Oct., 1892	.11 " "	Jan., 1896	.09½ " "	Apr., 1899	.11 " "
Jan., 1893	.11 " "	Apr., 1896	.09½ " "	July, 1899	.10 " "

FISH: Mackerel, salt, XXXX, No. 2.

Jan., 1890	\$22.00 per barrel.	Apr., 1893	\$21.00 per barrel.	July, 1896	\$18.00 per barrel.
Apr., 1890	22.00 " "	July, 1893	21.00 " "	Oct., 1896	16.00 " "
July, 1890	21.00 " "	Oct., 1893	19.00 " "	Jan., 1897	15.00 " "
Oct., 1890	23.00 " "	Jan., 1894	18.00 " "	Apr., 1897	11.00 " "
Jan., 1891	22.00 " "	Apr., 1894	15.00 " "	July, 1897	11.00 " "
Apr., 1891	22.00 " "	July, 1894	13.00 " "	Oct., 1897	17.50 " "
July, 1891	20.00 " "	Oct., 1894	16.00 " "	Jan., 1898	18.50 " "
Oct., 1891	19.00 " "	Jan., 1895	18.00 " "	Apr., 1898	19.00 " "
Jan., 1892	20.00 " "	Apr., 1895	21.00 " "	July, 1898	18.00 " "
Apr., 1892	24.00 " "	July, 1895	19.50 " "	Oct., 1898	21.00 " "
July, 1892	24.00 " "	Oct., 1895	21.50 " "	Jan., 1899	21.50 " "
Oct., 1892	18.00 " "	Jan., 1896	23.00 " "	Apr., 1899	21.50 " "
Jan., 1893	20.00 " "	Apr., 1896	22.00 " "	July, 1899	21.50 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

FOOD—Continued.

FLOUR: Rye.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$3.25 per barrel.	Apr., 1893	\$3.19 per barrel.	July, 1896	\$2.92½ per barrel.
Apr., 1890	2.95 " "	July, 1893	3.23 " "	Oct., 1896	3.11 " "
July, 1890	3.05 " "	Oct., 1893	3.31 " "	Jan., 1897	2.73 " "
Oct., 1890	3.90 " "	Jan., 1894	2.82 " "	Apr., 1897	2.45 " "
Jan., 1891	4.30 " "	Apr., 1894	2.92 " "	July, 1897	3.02 " "
Apr., 1891	5.05 " "	July, 1894	2.95 " "	Oct., 1897	3.08 " "
July, 1891	4.70 " "	Oct., 1894	2.84 " "	Jan., 1898	3.00 " "
Oct., 1891	5.05 " "	Jan., 1895	2.99 " "	Apr., 1898	3.50 " "
Jan., 1892	4.76½ " "	Apr., 1895	4.00 " "	July, 1898	2.83½ " "
Apr., 1892	4.22½ " "	July, 1895	3.19 " "	Oct., 1898	3.23 " "
July, 1892	3.84½ " "	Oct., 1895	2.70 " "	Jan., 1899	3.42½ " "
Oct., 1892	3.45 " "	Jan., 1896	2.70 " "	Apr., 1899	3.30 " "
Jan., 1893	3.26 " "	Apr., 1896	2.70 " "	July, 1899	3.28 " "

FLOUR: Wheat.

Jan., 1890	\$5.50 per barrel.	Apr., 1893	\$4.85 per barrel.	July, 1896	\$4.40 per barrel.
Apr., 1890	6.00 " "	July, 1893	4.75 " "	Oct., 1896	4.50 " "
July, 1890	6.00 " "	Oct., 1893	4.80 " "	Jan., 1897	5.35 " "
Oct., 1890	6.20 " "	Jan., 1894	4.40 " "	Apr., 1897	4.85 " "
Jan., 1891	5.85 " "	Apr., 1894	4.25 " "	July, 1897	4.65 " "
Apr., 1891	6.30 " "	July, 1894	4.35 " "	Oct., 1897	5.75 " "
July, 1891	6.00 " "	Oct., 1894	4.15 " "	Jan., 1898	5.60 " "
Oct., 1891	5.95 " "	Jan., 1895	4.20 " "	Apr., 1898	5.75 " "
Jan., 1892	5.60 " "	Apr., 1895	4.10 " "	July, 1898	5.35 " "
Apr., 1892	5.10 " "	July, 1895	4.85 " "	Oct., 1898	4.65 " "
July, 1892	5.10 " "	Oct., 1895	4.30 " "	Jan., 1899	4.30 " "
Oct., 1892	5.00 " "	Jan., 1896	4.25 " "	Apr., 1899	4.50 " "
Jan., 1893	5.00 " "	Apr., 1896	4.40 " "	July, 1899	4.50 " "

FRUIT: Apples, evaporated.

Jan., 1890	\$0.08 @ 0.09 per lb.	Apr., 1893	\$0.10 @ 0.11½ per lb.	July, 1896	\$0.06½ @ 0.07 per lb.
Apr., 1890	.11 @ .12 " "	July, 1893	.08 @ .09½ " "	Oct., 1896	b .04½ @ .06 " "
July, 1890	.09 @ .10½ " "	Oct., 1893	.09½ @ .11 " "	Jan., 1897	.03½ @ .05 " "
Oct., 1890	.15 @ .17 " "	Jan., 1894	.10 @ .13 " "	Apr., 1897	.04 @ .05 " "
Jan., 1891	.14 @ .16 " "	Apr., 1894	.10 @ .12 " "	July, 1897	.04 @ .05 " "
Apr., 1891	.14 @ .16 " "	July, 1894	.13 @ .15 " "	Oct., 1897	.08 @ .09 " "
July, 1891	.12 @ .14 " "	Oct., 1894	a .07 @ .09 " "	Jan., 1898	.08½ @ .09 " "
Oct., 1891	.07 @ .09 " "	Jan., 1895	a .06½ @ .08½ " "	Apr., 1898	.08½ @ .09 " "
Jan., 1892	.06 @ .08 " "	Apr., 1895	.07½ @ .08½ " "	July, 1898	.09½ @ .10 " "
Apr., 1892	a .05 @ .07 " "	July, 1895	.06½ @ .07½ " "	Oct., 1898	.08 @ .09 " "
July, 1892	a .05 @ .07 " "	Oct., 1895	b .06½ @ .07½ " "	Jan., 1899	.08 @ .10 " "
Oct., 1892	a .07 @ .09 " "	Jan., 1896	.06½ @ .08 " "	Apr., 1899	.09 @ .10½ " "
Jan., 1893	a .08 @ .10 " "	Apr., 1896	.05½ @ .07 " "	July, 1899	.08½ @ .10 " "

FRUIT: Currants, new, in barrels.

Jan., 1890	\$0.04½ per lb.	Apr., 1893	\$0.03½ @ 0.03½ per lb.	July, 1896	\$0.03½ @ 0.03½ per lb.
Apr., 1890	.06 @ 0.05½ " "	July, 1893	.02½ @ .02½ " "	Oct., 1896	.03½ @ .04 " "
July, 1890	.05 " "	Oct., 1893	.02 @ .02½ " "	Jan., 1897	.03½ " "
Oct., 1890	.04½ @ .04½ " "	Jan., 1894	.01½ @ .01½ " "	Apr., 1897	.04 " "
Jan., 1891	.04 " "	Apr., 1894	.01½ @ .01½ " "	July, 1897	.04½ @ .05½ " "
Apr., 1891	.04½ @ .04½ " "	July, 1894	.02 " "	Oct., 1897	.05½ @ .06 " "
July, 1891	.04½ @ .04½ " "	Oct., 1894	.02½ " "	Jan., 1898	.06½ @ .06½ " "
Oct., 1891	.03½ " "	Jan., 1895	.01½ @ .02½ " "	Apr., 1898	.06½ @ .06½ " "
Jan., 1892	.03½ @ .03½ " "	Apr., 1895	.03½ @ .03½ " "	July, 1898	.06½ @ .06 " "
Apr., 1892	.02½ @ .02½ " "	July, 1895	.01½ @ .02 " "	Oct., 1898	.06½ @ .05½ " "
July, 1892	.02½ " "	Oct., 1895	.02½ " "	Jan., 1899	.04½ @ .04½ " "
Oct., 1892	.03½ @ .03½ " "	Jan., 1896	.02½ @ .02½ " "	Apr., 1899	.04½ @ .04½ " "
Jan., 1893	.03½ @ .03½ " "	Apr., 1896	.02½ @ .02½ " "	July, 1899	.04½ @ .04½ " "

a Includes "prime" grade.

b Estimated price, no quotations.

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

FOOD—Continued.

FRUIT: Prunes, California, in boxes, 60s to 70s.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.07½ @ 0.07½ per lb.	Apr., 1893	\$0.12 @ 0.12½ per lb.	July, 1896	\$0.05½ @ 0.06½ per lb.
Apr., 1890	.12½ " "	July, 1893	.10 @ .11½ " "	Oct., 1896	.04½ @ .05 " "
July, 1890	.12½ " "	Oct., 1893	a .08½ @ .09½ " "	Jan., 1897	.05½ @ .06 " "
Oct., 1890	.12½ " "	Jan., 1894	.07½ @ .07½ " "	Apr., 1897	.06 @ .06½ " "
Jan., 1891	.12 " .12½ " "	Apr., 1894	.06 " " " "	July, 1897	.04½ @ .04½ " "
Apr., 1891	.11 @ .11½ " "	July, 1894	.07½ " " " "	Oct., 1897	.06½ " " " "
July, 1891	.08½ @ .09 " "	Oct., 1894	.07 @ .07½ " "	Jan., 1898	.05 @ .06½ " "
Oct., 1891	.07½ @ .07½ " "	Jan., 1895	.07½ " " " "	Apr., 1898	.05 @ .06½ " "
Jan., 1892	.08½ @ .08½ " "	Apr., 1895	.07 @ .07½ " "	July, 1898	.05 @ .06½ " "
Apr., 1892	a .07½ @ .08½ " "	July, 1895	.05½ @ .06½ " "	Oct., 1898	.05½ @ .06½ " "
July, 1892	.07½ @ .09 " "	Oct., 1895	.06½ @ .06½ " "	Jan., 1899	.06½ @ .06 " "
Oct., 1892	a .10½ " " " "	Jan., 1896	.06½ @ .06½ " "	Apr., 1899	.06½ @ .06 " "
Jan., 1893	.12½ " " " "	Apr., 1896	.05 @ .05½ " "	July, 1899	.05½ " " " "

FRUIT: Raisins, California, London layer, new.

Jan., 1890	\$2.20 @ 2.40 per box.	Apr., 1893	\$1.75 @ 2.00 per box.	July, 1896	\$1.00 " " per box.
Apr., 1890	2.25 @ 2.45 " "	July, 1893	1.65 @ 1.80 " "	Oct., 1896	1.10 @ 1.15 " "
July, 1890	2.20 @ 2.40 " "	Oct., 1893	1.50 @ 1.65 " "	Jan., 1897	1.45 @ 1.50 " "
Oct., 1890	2.10 @ 2.35 " "	Jan., 1894	1.10 @ 1.40 " "	Apr., 1897	1.30 @ 1.40 " "
Jan., 1891	2.00 @ 2.10 " "	Apr., 1894	.80 @ 1.15 " "	July, 1897	1.25 @ 1.50 " "
Apr., 1891	1.80 @ 2.25 " "	July, 1894	1.05 @ 1.10 " "	Oct., 1897	1.30 @ 1.50 " "
July, 1891	1.35 @ 1.65 " "	Oct., 1894	1.00 @ 1.10 " "	Jan., 1898	1.35 @ 1.45 " "
Oct., 1891	1.40 @ 1.50 " "	Jan., 1895	1.45 @ 1.50 " "	Apr., 1898	1.25 @ 1.40 " "
Jan., 1892	1.20 @ 1.60 " "	Apr., 1895	1.50 " " " "	July, 1898	1.30 @ 1.40 " "
Apr., 1892	1.35 @ 1.45 " "	July, 1895	1.35 @ 1.50 " "	Oct., 1898	1.45 @ 1.50 " "
July, 1892	1.15 @ 1.35 " "	Oct., 1895	1.45 @ 1.60 " "	Jan., 1899	1.20 @ 1.35 " "
Oct., 1892	1.35 @ 1.50 " "	Jan., 1896	.90 @ 1.25 " "	Apr., 1899	1.00 @ 1.15 " "
Jan., 1893	1.60 @ 1.85 " "	Apr., 1896	.80 @ .90 " "	July, 1899	1.15 " " " "

LARD: Prime, steam.

Jan., 1890	\$0.056½ @ 0.056½ per lb.	Apr., 1893	\$0.097½ @ 0.100 per lb.	July, 1896	\$0.086½ " " per lb.
Apr., 1890	.060½ " " " "	July, 1893	.093½ @ .095 " "	Oct., 1896	.040 " " " "
July, 1890	.056½ " " " "	Oct., 1893	.097½ @ .100 " "	Jan., 1897	.086½ @ 0.037 " "
Oct., 1890	.062½ " " " "	Jan., 1894	.078½ @ .080 " "	Apr., 1897	.089½ @ .040 " "
Jan., 1891	.057½ @ .058 " "	Apr., 1894	.068 @ .069 " "	July, 1897	.083½ " " " "
Apr., 1891	.065 @ .066½ " "	July, 1894	.066 " " " "	Oct., 1897	.043½ " " " "
July, 1891	.062½ " " " "	Oct., 1894	.080 " " " "	Jan., 1898	.046½ " " " "
Oct., 1891	.068½ @ .070 " "	Jan., 1895	.067 " " " "	Apr., 1898	.051½ " " " "
Jan., 1892	.059 @ .059½ " "	Apr., 1895	.069 " " " "	July, 1898	.050 " " " "
Apr., 1892	.061½ @ .061½ " "	July, 1895	.068½ " " " "	Oct., 1898	.045½ " " " "
July, 1892	.070 @ .070½ " "	Oct., 1895	.057½ " " " "	Jan., 1899	.054 " " " "
Oct., 1892	.080 @ .081½ " "	Jan., 1896	.052½ " " " "	Apr., 1899	.050½ " " " "
Jan., 1893	.097½ @ .103½ " "	Apr., 1896	.049½ " " " "	July, 1899	.049½ " " " "

MEAL: Corn, yellow, kiln dried.

Jan., 1890	\$2.65 per barrel.	Apr., 1893	\$2.70 per barrel.	July, 1896	\$2.05 per barrel.
Apr., 1890	2.45 " " " "	July, 1893	2.70 " " " "	Oct., 1896	2.05 " " " "
July, 1890	2.45 " " " "	Oct., 1893	2.80 " " " "	Jan., 1897	2.00 " " " "
Oct., 1890	3.20 " " " "	Jan., 1894	2.70 " " " "	Apr., 1897	1.70 " " " "
Jan., 1891	3.25 " " " "	Apr., 1894	2.65 " " " "	July, 1897	1.75 " " " "
Apr., 1891	3.75 " " " "	July, 1894	2.80 " " " "	Oct., 1897	1.80 " " " "
July, 1891	3.75 " " " "	Oct., 1894	3.10 " " " "	Jan., 1898	2.00 " " " "
Oct., 1891	4.05 " " " "	Jan., 1895	2.90 " " " "	Apr., 1898	2.05 " " " "
Jan., 1892	3.55 " " " "	Apr., 1895	2.60 " " " "	July, 1898	2.15 " " " "
Apr., 1892	2.95 " " " "	July, 1895	2.85 " " " "	Oct., 1898	2.05 " " " "
July, 1892	3.15 " " " "	Oct., 1895	2.55 " " " "	Jan., 1899	2.15 " " " "
Oct., 1892	3.10 " " " "	Jan., 1896	2.25 " " " "	Apr., 1899	2.10 " " " "
Jan., 1893	2.85 " " " "	Apr., 1896	2.15 " " " "	July, 1899	2.15 " " " "

a Estimated price, no quotations.

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

FOOD—Continued.

MEAT: Beef on the hoof, good, 1,200 to 1,350 pound beeves.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$2.85 @ 4.85 per 100 lbs.	Apr., 1893	\$4.15 @ 5.50 per 100 lbs.	July, 1896	\$3.25 @ 4.55 per 100 lbs.
Apr., 1890	3.55 @ 4.85 " "	July, 1893	3.25 @ 5.85 " "	Oct., 1896	3.20 @ 5.25 " "
July, 1890	3.50 @ 4.65 " "	Oct., 1893	3.00 @ 5.70 " "	Jan., 1897	3.80 @ 5.25 " "
Oct., 1890	2.75 @ 5.00 " "	Jan., 1894	3.00 @ 5.10 " "	Apr., 1897	3.75 @ 5.35 " "
Jan., 1891	3.58 @ 4.89 " "	Apr., 1894	3.05 @ 4.85 " "	July, 1897	3.65 @ 5.15 " "
Apr., 1891	4.50 @ 5.72 " "	July, 1894	3.00 @ 4.90 " "	Oct., 1897	4.00 @ 5.35 " "
July, 1891	4.19 @ 5.80 " "	Oct., 1894	3.00 @ 6.10 " "	Jan., 1898	3.80 @ 5.40 " "
Oct., 1891	2.91 @ 5.28 " "	Jan., 1895	3.15 @ 5.30 " "	Apr., 1898	3.95 @ 5.95 " "
Jan., 1892	3.00 @ 4.75 " "	Apr., 1895	4.25 @ 6.25 " "	July, 1898	4.25 @ 5.55 " "
Apr., 1892	3.20 @ 4.75 " "	July, 1895	3.45 @ 5.75 " "	Oct., 1898	4.00 @ 5.75 " "
July, 1892	3.45 @ 5.85 " "	Oct., 1895	3.20 @ 5.50 " "	Jan., 1899	4.20 @ 5.90 " "
Oct., 1892	2.85 @ 5.35 " "	Jan., 1896	3.20 @ 4.80 " "	Apr., 1899	4.20 @ 5.60 " "
Jan., 1893	3.35 @ 5.65 " "	Apr., 1896	3.00 @ 4.50 " "	July, 1899	4.65 @ 5.85 " "

MEAT: Beef on the hoof, choice, 1,350 to 1,500 pound beeves.

Jan., 1890	\$3.45 @ 5.25 per 100 lbs.	Apr., 1893	\$4.40 @ 6.00 per 100 lbs.	July, 1896	\$3.40 @ 4.65 per 100 lbs.
Apr., 1890	3.85 @ 5.30 " "	July, 1893	3.50 @ 5.40 " "	Oct., 1896	3.35 @ 5.30 " "
July, 1890	3.70 @ 5.00 " "	Oct., 1893	3.50 @ 5.80 " "	Jan., 1897	3.80 @ 5.50 " "
Oct., 1890	3.30 @ 5.25 " "	Jan., 1894	3.15 @ 5.60 " "	Apr., 1897	3.95 @ 5.50 " "
Jan., 1891	4.13 @ 5.36 " "	Apr., 1894	3.30 @ 4.85 " "	July, 1897	4.00 @ 5.20 " "
Apr., 1891	4.96 @ 5.91 " "	July, 1894	3.60 @ 5.05 " "	Oct., 1897	4.00 @ 5.35 " "
July, 1891	5.01 @ 5.99 " "	Oct., 1894	3.60 @ 6.35 " "	Jan., 1898	3.90 @ 5.50 " "
Oct., 1891	3.56 @ 5.91 " "	Jan., 1895	3.50 @ 5.45 " "	Apr., 1898	4.05 @ 5.60 " "
Jan., 1892	3.45 @ 5.50 " "	Apr., 1895	5.00 @ 6.30 " "	July, 1898	4.20 @ 5.65 " "
Apr., 1892	3.50 @ 4.85 " "	July, 1895	4.00 @ 5.90 " "	Oct., 1898	4.20 @ 5.85 " "
July, 1892	3.85 @ 6.10 " "	Oct., 1895	3.50 @ 5.50 " "	Jan., 1899	4.60 @ 6.00 " "
Oct., 1892	3.25 @ 5.75 " "	Jan., 1896	3.40 @ 4.90 " "	Apr., 1899	4.40 @ 5.75 " "
Jan., 1893	3.90 @ 6.00 " "	Apr., 1896	3.20 @ 4.75 " "	July, 1899	4.85 @ 5.90 " "

MEAT: Beef on the hoof, 1,200 to 1,500 pound beeves.

Jan., 1890	\$4.05 per 100 pounds.	Apr., 1893	\$6.00 per 100 pounds.	July, 1896	\$4.10 per 100 pounds.
Apr., 1890	4.40 " " "	July, 1893	4.25 " " "	Oct., 1896	4.40 " " "
July, 1890	4.20 " " "	Oct., 1893	4.45 " " "	Jan., 1897	4.45 " " "
Oct., 1890	4.00 " " "	Jan., 1894	4.20 " " "	Apr., 1897	4.55 " " "
Jan., 1891	4.35 " " "	Apr., 1894	4.15 " " "	July, 1897	4.55 " " "
Apr., 1891	5.00 " " "	July, 1894	4.05 " " "	Oct., 1897	4.75 " " "
July, 1891	4.60 " " "	Oct., 1894	4.80 " " "	Jan., 1898	4.75 " " "
Oct., 1891	4.10 " " "	Jan., 1895	4.30 " " "	Apr., 1898	4.65 " " "
Jan., 1892	4.10 " " "	Apr., 1895	5.50 " " "	July, 1898	4.90 " " "
Apr., 1892	4.05 " " "	July, 1895	4.80 " " "	Oct., 1898	5.05 " " "
July, 1892	4.35 " " "	Oct., 1895	4.30 " " "	Jan., 1899	5.35 " " "
Oct., 1892	4.20 " " "	Jan., 1896	4.00 " " "	Apr., 1899	5.05 " " "
Jan., 1893	4.85 " " "	Apr., 1896	3.80 " " "	July, 1899	5.40 " " "

MEAT: Beef, loins.

Jan., 1890	\$0.19 per pound.	Apr., 1893	\$0.21 per pound.	July, 1896	\$0.20 per pound.
Apr., 1890	.19 " " "	July, 1893	.21 " " "	Oct., 1896	.21 " " "
July, 1890	.19 " " "	Oct., 1893	.21 " " "	Jan., 1897	.21 " " "
Oct., 1890	.19 " " "	Jan., 1894	.22 " " "	Apr., 1897	.21 " " "
Jan., 1891	.19 " " "	Apr., 1894	.21 " " "	July, 1897	.21 " " "
Apr., 1891	.20 " " "	July, 1894	.20 " " "	Oct., 1897	.21 " " "
July, 1891	.20 " " "	Oct., 1894	.21 " " "	Jan., 1898	.20 " " "
Oct., 1891	.20 " " "	Jan., 1895	.21 " " "	Apr., 1898	.20 " " "
Jan., 1892	.20 " " "	Apr., 1895	.22 " " "	July, 1898	.20 " " "
Apr., 1892	.19 " " "	July, 1895	.21 " " "	Oct., 1898	.21 " " "
July, 1892	.19 " " "	Oct., 1895	.22 " " "	Jan., 1899	.21 " " "
Oct., 1892	.19 " " "	Jan., 1896	.21 " " "	Apr., 1899	.21 " " "
Jan., 1893	.19 " " "	Apr., 1896	.20 " " "	July, 1899	.21 " " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

FOOD—Continued.

MEAT: Beef, ribs.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.16 per pound.	Apr., 1893	\$0.17 per pound.	July, 1896	\$0.16 per pound.
Apr., 1890	.16 " "	July, 1893	.17 " "	Oct., 1896	.17 " "
July, 1890	.16 " "	Oct., 1893	.17 " "	Jan., 1897	.17 " "
Oct., 1890	.16 " "	Jan., 1894	.18 " "	Apr., 1897	.17 " "
Jan., 1891	.16 " "	Apr., 1894	.17 " "	July, 1897	.17 " "
Apr., 1891	.17 " "	July, 1894	.16 " "	Oct., 1897	.17 " "
July, 1891	.17 " "	Oct., 1894	.17 " "	Jan., 1898	.16 " "
Oct., 1891	.17 " "	Jan., 1895	.17 " "	Apr., 1898	.16 " "
Jan., 1892	.17 " "	Apr., 1895	.18 " "	July, 1898	.16 " "
Apr., 1892	.16 " "	July, 1895	.17 " "	Oct., 1898	.17 " "
July, 1892	.16 " "	Oct., 1895	.18 " "	Jan., 1899	.1 " "
Oct., 1892	.16 " "	Jan., 1896	.17 " "	Apr., 1899	.17 " "
Jan., 1893	.16 " "	Apr., 1896	.17 " "	July, 1899	.17 " "

MEAT: Beef, salt, family.

Jan., 1890	\$9.75 @ 10.25 per bbl.	Apr., 1893	\$11.50 @ 13.00 per bbl.	July, 1896	\$8.50 @ 9.00 per bbl.
Apr., 1890	8.00 @ 9.50 " "	July, 1893	10.00 @ 12.00 " "	Oct., 1896	8.00 @ 8.50 " "
July, 1890	8.35 @ 9.50 " "	Oct., 1893	12.00 @ 14.00 " "	Jan., 1897	8.50 @ 10.00 " "
Oct., 1890	10.15 @ 11.40 " "	Jan., 1894	14.00 @ 15.50 " "	Apr., 1897	9.00 @ 10.25 " "
Jan., 1891	9.00 @ 10.00 " "	Apr., 1894	12.00 @ 14.00 " "	July, 1897	8.50 @ 9.50 " "
Apr., 1891	10.00 @ 11.00 " "	July, 1894	9.50 @ 11.00 " "	Oct., 1897	9.10 @ 10.00 " "
July, 1891	12.50 @ 14.00 " "	Oct., 1894	10.00 @ 12.00 " "	Jan., 1898	8.00 @ 8.50 " "
Oct., 1891	10.50 @ 11.50 " "	Jan., 1895	10.50 @ 12.50 " "	Apr., 1898	9.50 @ 10.00 " "
Jan., 1892	9.50 @ 10.00 " "	Apr., 1895	10.75 @ 12.50 " "	July, 1898	10.00 @ 10.50 " "
Apr., 1892	9.50 @ 11.75 " "	July, 1895	10.50 @ 13.50 " "	Oct., 1898	8.00 " "
July, 1892	9.75 @ 10.90 " "	Oct., 1895	10.00 @ 12.00 " "	Jan., 1899	8.50 @ 9.00 " "
Oct., 1892	8.50 @ 10.00 " "	Jan., 1896	10.00 @ 12.00 " "	Apr., 1899	9.00 " "
Jan., 1893	11.50 @ 13.00 " "	Apr., 1896	10.00 @ 12.00 " "	July, 1899	9.00 " "

MEAT: Pork, salt, mess, old to new.

Jan., 1890	\$10.00 @ 10.50 per bbl.	Apr., 1893	\$18.00 @ 18.50 per bbl.	July, 1896	\$8.00 @ 8.25 per bbl.
Apr., 1890	11.00 @ 12.00 " "	July, 1893	19.00 @ 19.50 " "	Oct., 1896	8.00 @ 8.50 " "
July, 1890	13.25 @ 13.75 " "	Oct., 1893	18.00 @ 18.25 " "	Jan., 1897	8.25 @ 8.75 " "
Oct., 1890	11.25 @ 12.25 " "	Jan., 1894	13.75 @ 14.50 " "	Apr., 1897	9.00 @ 9.50 " "
Jan., 1891	10.00 @ 12.00 " "	Apr., 1894	13.00 @ 13.25 " "	July, 1897	8.25 @ 8.75 " "
Apr., 1891	11.50 @ 13.50 " "	July, 1894	13.75 @ 14.00 " "	Oct., 1897	9.00 @ 10.00 " "
July, 1891	10.00 @ 12.00 " "	Oct., 1894	14.75 @ 15.50 " "	Jan., 1898	8.75 @ 9.25 " "
Oct., 1891	10.75 @ 12.00 " "	Jan., 1895	12.75 @ 13.25 " "	Apr., 1898	9.50 @ 9.75 " "
Jan., 1892	9.00 @ 10.00 " "	Apr., 1895	13.50 @ 14.00 " "	July, 1898	10.00 @ 10.50 " "
Apr., 1892	9.50 @ 10.00 " "	July, 1895	13.25 @ 14.00 " "	Oct., 1898	8.50 @ 8.75 " "
July, 1892	11.00 @ 12.00 " "	Oct., 1895	10.00 @ 10.50 " "	Jan., 1899	9.75 @ 10.25 " "
Oct., 1892	11.25 @ 12.50 " "	Jan., 1896	9.00 @ 9.25 " "	Apr., 1899	9.00 @ 9.50 " "
Jan., 1893	15.25 @ 16.50 " "	Apr., 1896	8.75 @ 9.50 " "	July, 1899	8.75 @ 9.00 " "

MEAT: Bacon, short rib sides.

Jan., 1890	\$0.066½ @ 0.066½ per lb.	Apr., 1893	\$0.103½ @ 0.105 per lb.	July, 1896	\$0.043½ per lb.
Apr., 1890	.068½ @ .069 " "	July, 1893	.101½ @ .102½ " "	Oct., 1896	.040 " "
July, 1890	.068½ @ .067 " "	Oct., 1893	.112½ @ .117½ " "	Jan., 1897	.042½ @ 0.043½ " "
Oct., 1890	.060 @ .061 " "	Jan., 1894	.066½ @ .068½ " "	Apr., 1897	.062½ " "
Jan., 1891	.067½ @ .068 " "	Apr., 1894	.067½ @ .070 " "	July, 1897	.061½ " "
Apr., 1891	.065 @ .066½ " "	July, 1894	.072½ @ .075 " "	Oct., 1897	.061½ " "
July, 1891	.066½ @ .067½ " "	Oct., 1894	.080 " "	Jan., 1898	.060 " "
Oct., 1891	.082½ @ " "	Jan., 1895	.065 " "	Apr., 1898	.066 " "
Jan., 1892	.062½ @ .063½ " "	Apr., 1895	.067½ " "	July, 1898	.060 " "
Apr., 1892	.062½ @ " "	July, 1895	.068½ " "	Oct., 1898	.061½ " "
July, 1892	.068½ @ .064 " "	Oct., 1895	.062½ " "	Jan., 1899	.063½ " "
Oct., 1892	.087½ @ .068½ " "	Jan., 1896	.061½ " "	Apr., 1899	.062 " "
Jan., 1893	.092½ @ .096 " "	Apr., 1896	.062½ " "	July, 1899	.062 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

FOOD—Continued.

MEAT: Ham, sugar cured.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.09 @ 0.11½ per lb.	Apr., 1893	\$0.13½ @ 0.14½ per lb.	July, 1896	\$0.09 @ 0.10½ per lb.
Apr., 1890	.09½ @ .11½ " "	July, 1893	.12 @ .13 " "	Oct., 1896	.09½ @ .11½ " "
July, 1890	.09½ @ .11½ " "	Oct., 1893	.12 @ .13 " "	Jan., 1897	.09½ @ .11 " "
Oct., 1890	.10 @ .11½ " "	Jan., 1894	.09 @ .10 " "	Apr., 1897	.09½ @ .11½ " "
Jan., 1891	.08½ @ .10½ " "	Apr., 1894	.09½ @ .10 " "	July, 1897	.09½ @ .11½ " "
Apr., 1891	.08½ @ .10½ " "	July, 1894	.10½ @ .12 " "	Oct., 1897	.09 @ .10½ " "
July, 1891	.09½ @ .11½ " "	Oct., 1894	.11½ @ .12½ " "	Jan., 1898	.08 @ .09½ " "
Oct., 1891	.10 @ .12 " "	Jan., 1895	.09 @ .09½ " "	Apr., 1898	.07½ @ .09½ " "
Jan., 1892	.08½ @ .09½ " "	Apr., 1895	.09½ @ .10 " "	July, 1898	.07½ @ .10 " "
Apr., 1892	.09½ @ .10½ " "	July, 1895	.09½ @ .11 " "	Oct., 1898	.07½ @ .10 " "
July, 1892	.11½ @ .12½ " "	Oct., 1895	.09½ @ .10½ " "	Jan., 1899	.07½ @ .10 " "
Oct., 1892	.10½ @ .11½ " "	Jan., 1896	.09 @ .10½ " "	Apr., 1899	.07½ @ .09½ " "
Jan., 1893	.11½ @ .13 " "	Apr., 1896	.09 @ .10½ " "	July, 1899	.10 @ .10½ " "

MEAT: Mutton, racks and saddles.

Jan., 1890	\$0.20 per pound.	Apr., 1893	\$0.16 per pound.	July, 1896	\$0.13 per pound.
Apr., 1890	.20 " "	July, 1893	.18 " "	Oct., 1896	.14 " "
July, 1890	.20 " "	Oct., 1893	.15 " "	Jan., 1897	.11 " "
Oct., 1890	.20 " "	Jan., 1894	.13 " "	Apr., 1897	.14 " "
Jan., 1891	.18 " "	Apr., 1894	.13 " "	July, 1897	.14 " "
Apr., 1891	.18 " "	July, 1894	.15 " "	Oct., 1897	.13 " "
July, 1891	.20 " "	Oct., 1894	.13 " "	Jan., 1898	.14 " "
Oct., 1891	.18 " "	Jan., 1895	.10 " "	Apr., 1898	.15 " "
Jan., 1892	.18 " "	Apr., 1895	.16 " "	July, 1898	.15 " "
Apr., 1892	.19 " "	July, 1895	.14 " "	Oct., 1898	.15 " "
July, 1892	.22 " "	Oct., 1895	.14 " "	Jan., 1899	.15 " "
Oct., 1892	.20 " "	Jan., 1896	.12 " "	Apr., 1899	.15 " "
Jan., 1893	.16 " "	Apr., 1896	.12 " "	July, 1899	.15 " "

MILK: Fresh.

Jan., 1890	\$0.36 per can. (a)	Apr., 1893	\$0.30 per can. (a)	July, 1896	\$0.30 per can. (a)
Apr., 1890	.32 " "	July, 1893	.30 " "	Oct., 1896	.33 " "
July, 1890	.32 " "	Oct., 1893	.35 " "	Jan., 1897	.33 " "
Oct., 1890	.36 " "	Jan., 1894	.35 " "	Apr., 1897	.30 " "
Jan., 1891	.36 " "	Apr., 1894	.30 " "	July, 1897	.30 " "
Apr., 1891	.32 " "	July, 1894	.30 " "	Oct., 1897	.33 " "
July, 1891	.32 " "	Oct., 1894	.35 " "	Jan., 1898	.33 " "
Oct., 1891	.36 " "	Jan., 1895	.35 " "	Apr., 1898	.30 " "
Jan., 1892	.35 " "	Apr., 1895	.30 " "	July, 1898	.30 " "
Apr., 1892	.30 " "	July, 1895	.30 " "	Oct., 1898	.33 " "
July, 1892	.30 " "	Oct., 1895	.35 " "	Jan., 1899	.33 " "
Oct., 1892	.35 " "	Jan., 1896	.33 " "	Apr., 1899	.30 " "
Jan., 1893	.35 " "	Apr., 1896	.30 " "	July, 1899	.30 " "

MOLASSES: New Orleans, prime.

Jan., 1890	\$0.42 per gallon.	Apr., 1893	\$0.35 per gallon.	July, 1896	\$0.32 per gallon.
Apr., 1890	.40 " "	July, 1893	.33 " "	Oct., 1896	.31 " "
July, 1890	.40 " "	Oct., 1893	.31 " "	Jan., 1897	.29 " "
Oct., 1890	.38 " "	Jan., 1894	.35 " "	Apr., 1897	.29 " "
Jan., 1891	.36 " "	Apr., 1894	.31 " "	July, 1897	.28 " "
Apr., 1891	.30 " "	July, 1894	.30 " "	Oct., 1897	.28 " "
July, 1891	.32 " "	Oct., 1894	.29 " "	Jan., 1898	.32 " "
Oct., 1891	.32 " "	Jan., 1895	.33 " "	Apr., 1898	.30 " "
Jan., 1892	.37 " "	Apr., 1895	.31 " "	July, 1898	.33 " "
Apr., 1892	.34 " "	July, 1895	.29 " "	Oct., 1898	.35 " "
July, 1892	.33 " "	Oct., 1895	.30 " "	Jan., 1899	.35 " "
Oct., 1892	.32 " "	Jan., 1896	.34 " "	Apr., 1899	.36 " "
Jan., 1893	.36 " "	Apr., 1896	.33 " "	July, 1899	.36 " "

a A can contains 8 quarts and 1 pint.

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

FOOD—Continued.

MOLASSES: Puerto Rico, best.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.42 per gallon.	Apr., 1893	\$0.34 per gallon.	July, 1896	\$0.34 per gallon.
Apr., 1890	.38 " "	July, 1893	.34 " "	Oct., 1896	.34 " "
July, 1890	.38 " "	Oct., 1893	.32 " "	Jan., 1897	.34 " "
Oct., 1890	.38 " "	Jan., 1894	.38 " "	Apr., 1897	.33 " "
Jan., 1891	.36 " "	Apr., 1894	.37 " "	July, 1897	.31 " "
Apr., 1891	.35 " "	July, 1894	.37 " "	Oct., 1897	.30 " "
July, 1891	.35 " "	Oct., 1894	.36 " "	Jan., 1898	.34 " "
Oct., 1891	.35 " "	Jan., 1895	.39 " "	Apr., 1898	.33 " "
Jan., 1892	.36 " "	Apr., 1895	.37 " "	July, 1898	.33 " "
Apr., 1892	.34 " "	July, 1895	.36 " "	Oct., 1898	.32 " "
July, 1892	.33 " "	Oct., 1895	.34 " "	Jan., 1899	.36 " "
Oct., 1892	.33 " "	Jan., 1896	.36 " "	Apr., 1899	.36 " "
Jan., 1893	.35 " "	Apr., 1896	.35 " "	July, 1899	.37 " "

RICE: Carolina, good.

Jan., 1890	\$0.05 per pound.	Apr., 1893	\$0.03 per pound.	July, 1896	\$0.04 per pound.
Apr., 1890	.05 " "	July, 1893	.02 " "	Oct., 1896	.04 " "
July, 1890	.05 " "	Oct., 1893	.06 " "	Jan., 1897	.04 " "
Oct., 1890	.05 " "	Jan., 1894	.03 " "	Apr., 1897	.04 " "
Jan., 1891	.05 " "	Apr., 1894	.04 " "	July, 1897	.04 " "
Apr., 1891	.05 " "	July, 1894	.04 " "	Oct., 1897	.04 " "
July, 1891	.05 " "	Oct., 1894	.04 " "	Jan., 1898	.04 " "
Oct., 1891	.05 " "	Jan., 1895	.04 " "	Apr., 1898	.05 " "
Jan., 1892	.04 " "	Apr., 1895	.04 " "	July, 1898	.06 " "
Apr., 1892	.04 " "	July, 1895	.04 " "	Oct., 1898	.06 " "
July, 1892	.04 " "	Oct., 1895	.04 " "	Jan., 1899	.06 " "
Oct., 1892	.04 " "	Jan., 1896	.03 " "	Apr., 1899	.06 " "
Jan., 1893	.03 " "	Apr., 1896	.03 " "	July, 1899	.06 " "

SALT: Fine, boiled.

Jan., 1890	\$0.65 per barrel. (a)	Apr., 1893	\$0.65 per barrel. (a)	July, 1896	\$0.66 per barrel. (a)
Apr., 1890	.65 " "	July, 1893	.65 " "	Oct., 1896	.66 " "
July, 1890	.65 " "	Oct., 1893	.65 " "	Jan., 1897	.66 " "
Oct., 1890	.65 " "	Jan., 1894	.65 " "	Apr., 1897	.66 " "
Jan., 1891	.65 " "	Apr., 1894	.65 " "	July, 1897	.66 " "
Apr., 1891	.65 " "	July, 1894	.65 " "	Oct., 1897	.66 " "
July, 1891	.65 " "	Oct., 1894	.65 " "	Jan., 1898	.66 " "
Oct., 1891	.65 " "	Jan., 1895	.65 " "	Apr., 1898	.66 " "
Jan., 1892	.65 " "	Apr., 1895	.65 " "	July, 1898	.66 " "
Apr., 1892	.65 " "	July, 1895	.65 " "	Oct., 1898	.66 " "
July, 1892	.65 " "	Oct., 1895	.65 " "	Jan., 1899	.66 " "
Oct., 1892	.65 " "	Jan., 1896	.65 " "	Apr., 1899	.66 " "
Jan., 1893	.65 " "	Apr., 1896	.65 " "	July, 1899	.65 " "

SALT: Turks Island.

Jan., 1890	\$0.23 per bushel.	Apr., 1893	\$0.26 per bushel.	July, 1896	\$0.22 per bushel.
Apr., 1890	.26 " "	July, 1893	.24 " "	Oct., 1896	.23 " "
July, 1890	.29 " "	Oct., 1893	.23 " "	Jan., 1897	.20 " "
Oct., 1890	.23 " "	Jan., 1894	.23 " "	Apr., 1897	.21 " "
Jan., 1891	.25 " "	Apr., 1894	.25 " "	July, 1897	.21 " "
Apr., 1891	.28 " "	July, 1894	.23 " "	Oct., 1897	.22 " "
July, 1891	.28 " "	Oct., 1894	.21 " "	Jan., 1898	.20 " "
Oct., 1891	.26 " "	Jan., 1895	.27 " "	Apr., 1898	.21 " "
Jan., 1892	.26 " "	Apr., 1895	.21 " "	July, 1898	.21 " "
Apr., 1892	.25 " "	July, 1895	.21 " "	Oct., 1898	.22 " "
July, 1892	.27 " "	Oct., 1895	.21 " "	Jan., 1899	.23 " "
Oct., 1892	.30 " "	Jan., 1896	.21 " "	Apr., 1899	.24 " "
Jan., 1893	.25 " "	Apr., 1896	.21 " "	July, 1899	.21 " "

a Barrel of 280 pounds.

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

FOOD—Continued.

SPICES: Nutmegs, 110 nuts per pound.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.62 per pound.	Apr., 1893	\$0.47 per pound.	July, 1896	\$0.34 per pound.
Apr., 1890	.63 " "	July, 1893	.44 " "	Oct., 1896	.33 " "
July, 1890	.65 " "	Oct., 1893	.43 " "	Jan., 1897	.32 " "
Oct., 1890	.63 " "	Jan., 1894	.42 " "	Apr., 1897	.32 " "
Jan., 1891	.63 " "	Apr., 1894	.39 " "	July, 1897	.34 " "
Apr., 1891	.60 " "	July, 1894	.37 " "	Oct., 1897	.33 " "
July, 1891	.60 " "	Oct., 1894	.40 " "	Jan., 1898	.32 " "
Oct., 1891	.60 " "	Jan., 1895	.40 " "	Apr., 1898	.34 " "
Jan., 1892	.59 " "	Apr., 1895	.40 " "	July, 1898	.32 " "
Apr., 1892	.52 " "	July, 1895	.40 " "	Oct., 1898	.29 " "
July, 1892	.51 " "	Oct., 1895	.40 " "	Jan., 1899	.30 " "
Oct., 1892	.50 " "	Jan., 1896	.39 " "	Apr., 1899	.27 " "
Jan., 1893	.48 " "	Apr., 1896	.35 " "	July, 1899	.27 " "

SPICES: Pepper, whole, Sumatra.

Jan., 1890	\$0.12½ per pound.	Apr., 1893	\$0.05½ per pound.	July, 1896	\$0.04½ per pound.
Apr., 1890	.11½ " "	July, 1893	.04½ " "	Oct., 1896	.04½ " "
July, 1890	.10½ " "	Oct., 1893	.05 " "	Jan., 1897	.05 " "
Oct., 1890	.09 " "	Jan., 1894	.05 " "	Apr., 1897	.04½ " "
Jan., 1891	.08½ " "	Apr., 1894	.04½ " "	July, 1897	.05½ " "
Apr., 1891	.08½ " "	July, 1894	.04½ " "	Oct., 1897	.07½ " "
July, 1891	.07½ " "	Oct., 1894	.04½ " "	Jan., 1898	.07½ " "
Oct., 1891	.07½ " "	Jan., 1895	.04 " "	Apr., 1898	.08½ " "
Jan., 1892	.06½ " "	Apr., 1895	.04½ " "	July, 1898	.08½ " "
Apr., 1892	.06½ " "	July, 1895	.04½ " "	Oct., 1898	.09 " "
July, 1892	.06½ " "	Oct., 1895	.04½ " "	Jan., 1899	.10 " "
Oct., 1892	.06½ " "	Jan., 1896	.04½ " "	Apr., 1899	.10½ " "
Jan., 1893	.06½ " "	Apr., 1896	.04½ " "	July, 1899	.10½ " "

STARCH: Corn.

Jan., 1890	\$0.05400 per pound.	Apr., 1893	\$0.05625 per pound.	July, 1896	\$0.05400 per pound.
Apr., 1890	.05400 " "	July, 1893	.05625 " "	Oct., 1896	.05400 " "
July, 1890	.05400 " "	Oct., 1893	.05625 " "	Jan., 1897	.05400 " "
Oct., 1890	.05850 " "	Jan., 1894	.05625 " "	Apr., 1897	.05400 " "
Jan., 1891	.06300 " "	Apr., 1894	.05625 " "	July, 1897	.05400 " "
Apr., 1891	.05850 " "	July, 1894	.05850 " "	Oct., 1897	.05400 " "
July, 1891	.05850 " "	Oct., 1894	.05625 " "	Jan., 1898	.05400 " "
Oct., 1891	.05850 " "	Jan., 1895	.05625 " "	Apr., 1898	.05400 " "
Jan., 1892	.05625 " "	Apr., 1895	.05625 " "	July, 1898	.05400 " "
Apr., 1892	.05625 " "	July, 1895	.05625 " "	Oct., 1898	.05400 " "
July, 1892	.05625 " "	Oct., 1895	.05625 " "	Jan., 1899	.05400 " "
Oct., 1892	.05625 " "	Jan., 1896	.05625 " "	Apr., 1899	.05400 " "
Jan., 1893	.05625 " "	Apr., 1896	.05400 " "	July, 1899	.05400 " "

SUGAR: Centrifugal, 96-degree test.

Jan., 1890	\$0.044100 per pound.	Apr., 1893	\$0.037500 per pound.	July, 1896	\$0.035000 per pound.
Apr., 1890	.040800 " "	July, 1893	.033750 " "	Oct., 1896	.030625 " "
July, 1890	.040800 " "	Oct., 1893	.038750 " "	Jan., 1897	.031375 " "
Oct., 1890	.045000 " "	Jan., 1894	.028750 " "	Apr., 1897	.033750 " "
Jan., 1891	.051400 " "	Apr., 1894	.028750 " "	July, 1897	.035000 " "
Apr., 1891	.036250 " "	July, 1894	.031250 " "	Oct., 1897	.039375 " "
July, 1891	.033100 " "	Oct., 1894	.037500 " "	Jan., 1898	.042500 " "
Oct., 1891	.033750 " "	Jan., 1895	.030000 " "	Apr., 1898	.041250 " "
Jan., 1892	.033750 " "	Apr., 1895	.030000 " "	July, 1898	.042500 " "
Apr., 1892	.031250 " "	July, 1895	.032500 " "	Oct., 1898	.042500 " "
July, 1892	.031250 " "	Oct., 1895	.035625 " "	Jan., 1899	.043125 " "
Oct., 1892	.035000 " "	Jan., 1896	.037500 " "	Apr., 1899	.041375 " "
Jan., 1893	.034400 " "	Apr., 1896	.041875 " "	July, 1899	.045000 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

FOOD—Concluded.

SUGAR: Fair refining, 89-degree test.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.048750 per pound.	Apr., 1893	\$0.032500 per pound.	July, 1896	\$0.030000 per pound.
Apr., 1890	.048125 " "	July, 1893	.037500 " "	Oct., 1896	.026875 " "
July, 1890	.047500 " "	Oct., 1893	.038750 " "	Jan., 1897	.028125 " "
Oct., 1890	.053750 " "	Jan., 1894	.026250 " "	Apr., 1897	.030000 " "
Jan., 1891	.045625 " "	Apr., 1894	.025000 " "	July, 1897	.030000 " "
Apr., 1891	.031875 " "	July, 1894	.026875 " "	Oct., 1897	.033125 " "
July, 1891	.030000 " "	Oct., 1894	.031250 " "	Jan., 1898	.036250 " "
Oct., 1891	.028750 " "	Jan., 1895	.027500 " "	Apr., 1898	.036250 " "
Jan., 1892	.030625 " "	Apr., 1895	.026875 " "	July, 1898	.036250 " "
Apr., 1892	.027500 " "	July, 1895	.028750 " "	Oct., 1898	.037500 " "
July, 1892	.027500 " "	Oct., 1895	.031250 " "	Jan., 1899	.038125 " "
Oct., 1892	.030000 " "	Jan., 1896	.033750 " "	Apr., 1899	.039375 " "
Jan., 1893	.030000 " "	Apr., 1896	.037500 " "	July, 1899	.040000 " "

SUGAR: Granulated.

Jan., 1890	\$0.065000 per pound.	Apr., 1893	\$0.048400 per pound.	July, 1896	\$0.046000 per pound.
Apr., 1890	.060625 " "	July, 1893	.052700 " "	Oct., 1896	.042300 " "
July, 1890	.062500 " "	Oct., 1893	.050900 " "	Jan., 1897	.041000 " "
Oct., 1890	.066250 " "	Jan., 1894	.037400 " "	Apr., 1897	.044700 " "
Jan., 1891	.059375 " "	Apr., 1894	.039800 " "	July, 1897	.044700 " "
Apr., 1891	.045000 " "	July, 1894	.039800 " "	Oct., 1897	.048400 " "
July, 1891	.042500 " "	Oct., 1894	.041100 " "	Jan., 1898	.049600 " "
Oct., 1891	.043750 " "	Jan., 1895	.037400 " "	Apr., 1898	.048400 " "
Jan., 1892	.040400 " "	Apr., 1895	.038600 " "	July, 1898	.050900 " "
Apr., 1892	.042800 " "	July, 1895	.043500 " "	Oct., 1898	.049600 " "
July, 1892	.042200 " "	Oct., 1895	.041100 " "	Jan., 1899	.047200 " "
Oct., 1892	.049000 " "	Jan., 1896	.045900 " "	Apr., 1899	.048400 " "
Jan., 1893	.046000 " "	Apr., 1896	.048900 " "	July, 1899	.052100 " "

TALLOW.

Jan., 1890	\$0.04 $\frac{1}{2}$ per lb.	Apr., 1893	\$0.05 $\frac{1}{2}$ per lb.	July, 1896	\$0.03 $\frac{1}{2}$ per lb.
Apr., 1890	.04 $\frac{1}{2}$ @ 0.04 $\frac{1}{2}$ " "	July, 1893	.04 $\frac{1}{2}$ " "	Oct., 1896	.03 $\frac{1}{2}$ " "
July, 1890	.04 $\frac{1}{2}$ " "	Oct., 1893	.06 $\frac{1}{2}$ " "	Jan., 1897	.03 $\frac{1}{2}$ @ 0.03 $\frac{1}{2}$ " "
Oct., 1890	.05 " "	Jan., 1894	.06 $\frac{1}{2}$ @ 0.05 $\frac{1}{2}$ " "	Apr., 1897	.03 $\frac{1}{2}$ " "
Jan., 1891	.04 $\frac{1}{2}$ @ .04 $\frac{1}{2}$ " "	Apr., 1894	.04 $\frac{1}{2}$ @ .04 $\frac{1}{2}$ " "	July, 1897	.03 $\frac{1}{2}$ " "
Apr., 1891	.05 $\frac{1}{2}$ " "	July, 1894	.04 $\frac{1}{2}$ @ .04 $\frac{1}{2}$ " "	Oct., 1897	.03 $\frac{1}{2}$ " "
July, 1891	.04 $\frac{1}{2}$ @ .04 $\frac{1}{2}$ " "	Oct., 1894	.04 $\frac{1}{2}$ " "	Jan., 1898	.03 $\frac{1}{2}$ @ .03 $\frac{1}{2}$ " "
Oct., 1891	.05 " "	Jan., 1895	.04 $\frac{1}{2}$ " "	Apr., 1898	.03 $\frac{1}{2}$ " "
Jan., 1892	.04 $\frac{1}{2}$ " "	Apr., 1895	.04 $\frac{1}{2}$ " "	July, 1898	.03 $\frac{1}{2}$ " "
Apr., 1892	.04 $\frac{1}{2}$ " "	July, 1895	.04 $\frac{1}{2}$ " "	Oct., 1898	.03 $\frac{1}{2}$ " "
July, 1892	.04 $\frac{1}{2}$ " "	Oct., 1895	.04 $\frac{1}{2}$ " "	Jan., 1899	.03 $\frac{1}{2}$ " "
Oct., 1892	.04 $\frac{1}{2}$ " "	Jan., 1896	.03 $\frac{1}{2}$ " "	Apr., 1899	.04 $\frac{1}{2}$ @ .04 $\frac{1}{2}$ " "
Jan., 1893	.05 $\frac{1}{2}$ " "	Apr., 1896	.03 $\frac{1}{2}$ @ .03 $\frac{1}{2}$ " "	July, 1899	.04 $\frac{1}{2}$ @ .04 $\frac{1}{2}$ " "

CLOTHS AND CLOTHING.

BAGS: 2-bushel, Amoskeag.

Jan., 1890	\$0.15 $\frac{1}{2}$ each.	Apr., 1893	\$0.15 $\frac{1}{2}$ each.	July, 1896	\$0.12 $\frac{1}{2}$ each.
Apr., 1890	.15 $\frac{1}{2}$ " "	July, 1893	.15 $\frac{1}{2}$ " "	Oct., 1896	.13 " "
July, 1890	.16 " "	Oct., 1893	.13 $\frac{1}{2}$ " "	Jan., 1897	.13 " "
Oct., 1890	.16 $\frac{1}{2}$ " "	Jan., 1894	.13 $\frac{1}{2}$ " "	Apr., 1897	.13 " "
Jan., 1891	.15 $\frac{1}{2}$ " "	Apr., 1894	.13 $\frac{1}{2}$ " "	July, 1897	.12 $\frac{1}{2}$ " "
Apr., 1891	.15 $\frac{1}{2}$ " "	July, 1894	.11 $\frac{1}{2}$ " "	Oct., 1897	.13 $\frac{1}{2}$ " "
July, 1891	.16 $\frac{1}{2}$ " "	Oct., 1894	.12 $\frac{1}{2}$ " "	Jan., 1898	.12 $\frac{1}{2}$ " "
Oct., 1891	.16 $\frac{1}{2}$ " "	Jan., 1895	.10 $\frac{1}{2}$ " "	Apr., 1898	.12 $\frac{1}{2}$ " "
Jan., 1892	.15 $\frac{1}{2}$ " "	Apr., 1895	.11 " "	July, 1898	.14 " "
Apr., 1892	.15 $\frac{1}{2}$ " "	July, 1895	.11 $\frac{1}{2}$ " "	Oct., 1898	.14 $\frac{1}{2}$ " "
July, 1892	.15 $\frac{1}{2}$ " "	Oct., 1895	.13 " "	Jan., 1899	.14 " "
Oct., 1892	.15 $\frac{1}{2}$ " "	Jan., 1896	.13 $\frac{1}{2}$ " "	Apr., 1899	.14 $\frac{1}{2}$ " "
Jan., 1893	.16 $\frac{1}{2}$ " "	Apr., 1896	.12 $\frac{1}{2}$ " "	July, 1899	.14 $\frac{1}{2}$ " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

CLOTHS AND CLOTHING—Continued.

BOOTS AND SHOES: Women's shoes, solid leather, grain, polish or polka.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.85 per pair.	Apr., 1893	\$0.85 per pair.	July, 1896	\$0.85 per pair.
Apr., 1890	.85 " "	July, 1893	.85 " "	Oct., 1896	.85 " "
July, 1890	.85 " "	Oct., 1893	.85 " "	Jan., 1897	.85 " "
Oct., 1890	.85 " "	Jan., 1894	.85 " "	Apr., 1897	.85 " "
Jan., 1891	.85 " "	Apr., 1894	.85 " "	July, 1897	.85 " "
Apr., 1891	.85 " "	July, 1894	.85 " "	Oct., 1897	.85 " "
July, 1891	.85 " "	Oct., 1894	.85 " "	Jan., 1898	.85 " "
Oct., 1891	.85 " "	Jan., 1895	.85 " "	Apr., 1898	.85 " "
Jan., 1892	.85 " "	Apr., 1895	.85 " "	July, 1898	.85 " "
Apr., 1892	.85 " "	July, 1895	.85 " "	Oct., 1898	.85 " "
July, 1892	.85 " "	Oct., 1895	.85 " "	Jan., 1899	.85 " "
Oct., 1892	.85 " "	Jan., 1896	.85 " "	Apr., 1899	.85 " "
Jan., 1893	.85 " "	Apr., 1896	.85 " "	July, 1899	.85 " "

BOOTS AND SHOES: Men's brogans.

Jan., 1890	\$1.05 per pair.	Apr., 1893	\$1.02½ per pair.	July, 1896	\$1.00 per pair.
Apr., 1890	1.05 " "	July, 1893	1.00 " "	Oct., 1896	.97½ " "
July, 1890	1.05 " "	Oct., 1893	1.00 " "	Jan., 1897	.95 " "
Oct., 1890	1.05 " "	Jan., 1894	1.00 " "	Apr., 1897	.95 " "
Jan., 1891	1.05 " "	Apr., 1894	1.00 " "	July, 1897	.95 " "
Apr., 1891	1.05 " "	July, 1894	.95 " "	Oct., 1897	.95 " "
July, 1891	1.05 " "	Oct., 1894	.92½ " "	Jan., 1898	.90 " "
Oct., 1891	1.05 " "	Jan., 1895	.92½ " "	Apr., 1898	.90 " "
Jan., 1892	1.05 " "	Apr., 1895	.95 " "	July, 1898	.92½ " "
Apr., 1892	1.05 " "	July, 1895	1.05 " "	Oct., 1898	.92½ " "
July, 1892	1.02½ " "	Oct., 1895	1.00 " "	Jan., 1899	.92½ " "
Oct., 1892	1.02½ " "	Jan., 1896	1.00 " "	Apr., 1899	.92½ " "
Jan., 1893	1.02½ " "	Apr., 1896	1.00 " "	July, 1899	.95 " "

BOOTS AND SHOES: Men's calf, bal. shoes, Goodyear welt, dongola top.

Jan., 1890	\$2.40 per pair.	Apr., 1893	\$2.40 per pair.	July, 1896	\$2.40 per pair.
Apr., 1890	2.40 " "	July, 1893	2.40 " "	Oct., 1896	2.40 " "
July, 1890	2.40 " "	Oct., 1893	2.40 " "	Jan., 1897	2.40 " "
Oct., 1890	2.40 " "	Jan., 1894	2.40 " "	Apr., 1897	2.40 " "
Jan., 1891	2.40 " "	Apr., 1894	2.40 " "	July, 1897	2.40 " "
Apr., 1891	2.40 " "	July, 1894	2.40 " "	Oct., 1897	2.40 " "
July, 1891	2.40 " "	Oct., 1894	2.40 " "	Jan., 1898	2.40 " "
Oct., 1891	2.40 " "	Jan., 1895	2.40 " "	Apr., 1898	2.40 " "
Jan., 1892	2.40 " "	Apr., 1895	2.40 " "	July, 1898	2.24 " "
Apr., 1892	2.40 " "	July, 1895	2.40 " "	Oct., 1898	2.24 " "
July, 1892	2.40 " "	Oct., 1895	2.40 " "	Jan., 1899	2.24 " "
Oct., 1892	2.40 " "	Jan., 1896	2.40 " "	Apr., 1899	2.24 " "
Jan., 1893	2.40 " "	Apr., 1896	2.40 " "	July, 1899	2.24 " "

BOOTS AND SHOES: Men's split boot, kip top, 16-inch, ½ double sole.

Jan., 1890	\$17.00 per doz. pairs.	Apr., 1893	\$16.50 per doz. pairs.	July, 1896	\$15.50 per doz. pairs.
Apr., 1890	17.00 " "	July, 1893	16.50 " "	Oct., 1896	15.50 " "
July, 1890	17.00 " "	Oct., 1893	16.50 " "	Jan., 1897	16.00 " "
Oct., 1890	17.00 " "	Jan., 1894	16.00 " "	Apr., 1897	16.00 " "
Jan., 1891	17.00 " "	Apr., 1894	16.00 " "	July, 1897	16.00 " "
Apr., 1891	17.00 " "	July, 1894	16.00 " "	Oct., 1897	16.00 " "
July, 1891	17.00 " "	Oct., 1894	16.00 " "	Jan., 1898	16.50 " "
Oct., 1891	17.00 " "	Jan., 1895	15.00 " "	Apr., 1898	16.50 " "
Jan., 1892	17.00 " "	Apr., 1895	15.00 " "	July, 1898	16.50 " "
Apr., 1892	17.00 " "	July, 1895	15.00 " "	Oct., 1898	16.50 " "
July, 1892	17.00 " "	Oct., 1895	15.00 " "	Jan., 1899	17.00 " "
Oct., 1892	17.00 " "	Jan., 1896	15.50 " "	Apr., 1899	17.00 " "
Jan., 1893	16.50 " "	Apr., 1896	15.50 " "	July, 1899	17.00 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY,
1899—Continued.

CLOTHS AND CLOTHING—Continued.

CALICO: Cocheeco prints.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.06½ per yard.	Apr., 1893	\$0.06½ per yard.	July, 1896	\$0.05 per yard.
Apr., 1890	.06½ " "	July, 1893	.06 " "	Oct., 1896	.05 " "
July, 1890	.06½ " "	Oct., 1893	.06 " "	Jan., 1897	.05 " "
Oct., 1890	.06½ " "	Jan., 1894	.06½ " "	Apr., 1897	.05 " "
Jan., 1891	.06 " "	Apr., 1894	.06½ " "	July, 1897	.05 " "
Apr., 1891	.05 " "	July, 1894	.06½ " "	Oct., 1897	.05 " "
July, 1891	.06 " "	Oct., 1894	.06½ " "	Jan., 1898	.04½ " "
Oct., 1891	.06 " "	Jan., 1895	.06 " "	Apr., 1898	.04½ " "
Jan., 1892	.06½ " "	Apr., 1895	.06 " "	July, 1898	.04½ " "
Apr., 1892	.06½ " "	July, 1895	.06½ " "	Oct., 1898	.04½ " "
July, 1892	.06½ " "	Oct., 1895	.06½ " "	Jan., 1899	.04½ " "
Oct., 1892	.06½ " "	Jan., 1896	.06½ " "	Apr., 1899	.04½ " "
Jan., 1893	.06½ " "	Apr., 1896	.06½ " "	July, 1899	.05 " "

CARPETS: Brussels, 5-frame, Bigelow.

Jan., 1890	\$1.07½ per yard.	Apr., 1893	\$1.02½ per yard.	July, 1896	\$0.97½ per yard.
Apr., 1890	1.07½ " "	July, 1893	1.02½ " "	Oct., 1896	.97½ " "
July, 1890	1.07½ " "	Oct., 1893	1.02½ " "	Jan., 1897	.97½ " "
Oct., 1890	1.07½ " "	Jan., 1894	.97½ " "	Apr., 1897	.97½ " "
Jan., 1891	1.17½ " "	Apr., 1894	.97½ " "	July, 1897	1.02½ " "
Apr., 1891	1.17½ " "	July, 1894	.97½ " "	Oct., 1897	1.02½ " "
July, 1891	1.17½ " "	Oct., 1894	.97½ " "	Jan., 1898	1.07½ " "
Oct., 1891	1.17½ " "	Jan., 1895	.97½ " "	Apr., 1898	1.07½ " "
Jan., 1892	1.17½ " "	Apr., 1895	.97½ " "	July, 1898	1.07½ " "
Apr., 1892	1.07½ " "	July, 1895	.97½ " "	Oct., 1898	1.07½ " "
July, 1892	1.02½ " "	Oct., 1895	.97½ " "	Jan., 1899	1.07½ " "
Oct., 1892	1.02½ " "	Jan., 1896	.97½ " "	Apr., 1899	1.07½ " "
Jan., 1893	1.02½ " "	Apr., 1896	.97½ " "	July, 1899	1.07½ " "

CARPETS: Ingrain, 2-ply, Lowell.

Jan., 1890	\$0.5310 per yard.	Apr., 1893	\$0.5208 per yard.	July, 1896	\$0.4127 per yard.
Apr., 1890	.4829 " "	July, 1893	.5302 " "	Oct., 1896	.3796 " "
July, 1890	.5031 " "	Oct., 1893	.4864 " "	Jan., 1897	.4096 " "
Oct., 1890	.5065 " "	Jan., 1894	.4901 " "	Apr., 1897	.3956 " "
Jan., 1891	.5647 " "	Apr., 1894	.4636 " "	July, 1897	.4311 " "
Apr., 1891	.5379 " "	July, 1894	.4542 " "	Oct., 1897	.4492 " "
July, 1891	.5554 " "	Oct., 1894	.4112 " "	Jan., 1898	.4944 " "
Oct., 1891	.5098 " "	Jan., 1895	.4305 " "	Apr., 1898	.4599 " "
Jan., 1892	.5032 " "	Apr., 1895	.4079 " "	July, 1898	.4838 " "
Apr., 1892	.5014 " "	July, 1895	.4108 " "	Oct., 1898	.4068 " "
July, 1892	.5035 " "	Oct., 1895	.3825 " "	Jan., 1899	.4173 " "
Oct., 1892	.5089 " "	Jan., 1896	.4074 " "	Apr., 1899	.4004 " "
Jan., 1893	.5289 " "	Apr., 1896	.3832 " "	July, 1899	.4293 " "

CARPETS: Wilton, 5-frame, Bigelow.

Jan., 1890	\$2.00 per yard.	Apr., 1893	\$2.00 per yard.	July, 1896	\$1.75 per yard.
Apr., 1890	2.00 " "	July, 1893	2.00 " "	Oct., 1896	1.75 " "
July, 1890	2.00 " "	Oct., 1893	2.00 " "	Jan., 1897	1.75 " "
Oct., 1890	2.00 " "	Jan., 1894	2.00 " "	Apr., 1897	1.75 " "
Jan., 1891	2.10 " "	Apr., 1894	2.00 " "	July, 1897	1.85 " "
Apr., 1891	2.10 " "	July, 1894	2.00 " "	Oct., 1897	1.85 " "
July, 1891	2.10 " "	Oct., 1894	2.00 " "	Jan., 1898	1.90 " "
Oct., 1891	2.10 " "	Jan., 1895	1.75 " "	Apr., 1898	1.90 " "
Jan., 1892	2.00 " "	Apr., 1895	1.75 " "	July, 1898	1.90 " "
Apr., 1892	2.00 " "	July, 1895	1.75 " "	Oct., 1898	1.90 " "
July, 1892	2.00 " "	Oct., 1895	1.75 " "	Jan., 1899	1.90 " "
Oct., 1892	2.00 " "	Jan., 1896	1.75 " "	Apr., 1899	1.90 " "
Jan., 1893	2.00 " "	Apr., 1896	1.75 " "	July, 1899	1.90 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY,
1899—Continued.

CLOTHS AND CLOTHING—Continued.

COTTON THREAD: 6-cord, 200 yards, J. and P. Coats.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.0324375 per spool.	Apr., 1893	\$0.0318750 per spool.	July, 1896	\$0.0311250 per spool.
Apr., 1890	.0324375 " "	July, 1893	.0318750 " "	Oct., 1896	.0311250 " "
July, 1890	.0318750 " "	Oct., 1893	.0318750 " "	Jan., 1897	.0311250 " "
Oct., 1890	.0318750 " "	Jan., 1894	.0318750 " "	Apr., 1897	.0311250 " "
Jan., 1891	.0318750 " "	Apr., 1894	.0318750 " "	July, 1897	.0311250 " "
Apr., 1891	.0318750 " "	July, 1894	.0318750 " "	Oct., 1897	.0311250 " "
July, 1891	.0318750 " "	Oct., 1894	.0318750 " "	Jan., 1898	.0311250 " "
Oct., 1891	.0318750 " "	Jan., 1895	.0318750 " "	Apr., 1898	.0311250 " "
Jan., 1892	.0318750 " "	Apr., 1895	.0318750 " "	July, 1898	.0311250 " "
Apr., 1892	.0318750 " "	July, 1895	.0318750 " "	Oct., 1898	.0311250 " "
July, 1892	.0318750 " "	Oct., 1895	.0318750 " "	Jan., 1899	.0311250 " "
Oct., 1892	.0318750 " "	Jan., 1896	.0318750 " "	Apr., 1899	.0311250 " "
Jan., 1893	.0318750 " "	Apr., 1896	.0318750 " "	July, 1899	.0311250 " "

COTTON: Upland, middling.

Jan., 1890	\$0.10½ per pound.	Apr., 1893	\$0.08½ per pound.	July, 1896	\$0.07½ per pound.
Apr., 1890	.11½ " "	July, 1893	.08 " "	Oct., 1896	.08½ " "
July, 1890	.12 " "	Oct., 1893	.08½ " "	Jan., 1897	.07 " "
Oct., 1890	.10½ " "	Jan., 1894	.07½ " "	Apr., 1897	.07½ " "
Jan., 1891	.09½ " "	Apr., 1894	.07½ " "	July, 1897	.07½ " "
Apr., 1891	.09 " "	July, 1894	.07½ " "	Oct., 1897	.06½ " "
July, 1891	.08½ " "	Oct., 1894	.06½ " "	Jan., 1898	.05½ " "
Oct., 1891	.08½ " "	Jan., 1895	.05½ " "	Apr., 1898	.06½ " "
Jan., 1892	.07½ " "	Apr., 1895	.06½ " "	July, 1898	.06½ " "
Apr., 1892	.06½ " "	July, 1895	.07½ " "	Oct., 1898	.05½ " "
July, 1892	.07½ " "	Oct., 1895	.09½ " "	Jan., 1899	.05½ " "
Oct., 1892	.07½ " "	Jan., 1896	.08½ " "	Apr., 1899	.06½ " "
Jan., 1893	.09½ " "	Apr., 1896	.07½ " "	July, 1899	.06½ " "

DENIMS: Amoskeag.

Jan., 1890	\$0.11½ per yard.	Apr., 1893	\$0.11½ per yard.	July, 1896	\$0.09½ per yard.
Apr., 1890	.11½ " "	July, 1893	.12 " "	Oct., 1896	.10 " "
July, 1890	.11½ " "	Oct., 1893	.12 " "	Jan., 1897	.10 " "
Oct., 1890	.12 " "	Jan., 1894	.11 " "	Apr., 1897	.09½ " "
Jan., 1891	.11½ " "	Apr., 1894	.11 " "	July, 1897	.09 " "
Apr., 1891	.11½ " "	July, 1894	.11 " "	Oct., 1897	.09 " "
July, 1891	.11½ " "	Oct., 1894	.11 " "	Jan., 1898	.09 " "
Oct., 1891	.11½ " "	Jan., 1895	.10 " "	Apr., 1898	.09 " "
Jan., 1892	.11½ " "	Apr., 1895	.09½ " "	July, 1898	.09 " "
Apr., 1892	.11½ " "	July, 1895	.09½ " "	Oct., 1898	.08½ " "
July, 1892	.11½ " "	Oct., 1895	.10 " "	Jan., 1899	.08½ " "
Oct., 1892	.11½ " "	Jan., 1896	.10½ " "	Apr., 1899	.09 " "
Jan., 1893	.11½ " "	Apr., 1896	.09½ " "	July, 1899	.09½ " "

DRILLINGS: Stark A.

Jan., 1890	\$0.0615 per yard.	Apr., 1893	\$0.0578 per yard.	July, 1896	\$0.0520 per yard.
Apr., 1890	.0629 " "	July, 1893	.0595 " "	Oct., 1896	.0510 " "
July, 1890	.0672 " "	Oct., 1893	.0547 " "	Jan., 1897	.0483 " "
Oct., 1890	.0649 " "	Jan., 1894	.0531 " "	Apr., 1897	.0469 " "
Jan., 1891	.0644 " "	Apr., 1894	.0498 " "	July, 1897	.0456 " "
Apr., 1891	.0614 " "	July, 1894	.0483 " "	Oct., 1897	.0482 " "
July, 1891	.0594 " "	Oct., 1894	.0491 " "	Jan., 1898	.0416 " "
Oct., 1891	.0643 " "	Jan., 1895	.0471 " "	Apr., 1898	.0443 " "
Jan., 1892	.0563 " "	Apr., 1895	.0465 " "	July, 1898	.0445 " "
Apr., 1892	.0632 " "	July, 1895	.0450 " "	Oct., 1898	.0422 " "
July, 1892	.0629 " "	Oct., 1895	.0559 " "	Jan., 1899	.0425 " "
Oct., 1892	.0617 " "	Jan., 1896	.0538 " "	Apr., 1899	.0453 " "
Jan., 1893	.0660 " "	Apr., 1896	.0521 " "	July, 1899	.0465 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

CLOTHS AND CLOTHING—Continued.

FELTS: Press, 12 by 5½ feet, fine Fourdins.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$21.00 each.	Apr., 1893	\$18.53 each.	July, 1896	\$17.00 each.
Apr., 1890	21.00 "	July, 1893	18.53 "	Oct., 1896	17.00 "
July, 1890	21.00 "	Oct., 1893	18.53 "	Jan., 1897	17.00 "
Oct., 1890	21.00 "	Jan., 1894	18.53 "	Apr., 1897	17.00 "
Jan., 1891	18.53 "	Apr., 1894	18.53 "	July, 1897	17.00 "
Apr., 1891	18.53 "	July, 1894	18.53 "	Oct., 1897	17.00 "
July, 1891	18.53 "	Oct., 1894	17.00 "	Jan., 1898	17.00 "
Oct., 1891	18.53 "	Jan., 1895	17.00 "	Apr., 1898	17.00 "
Jan., 1892	18.53 "	Apr., 1895	17.00 "	July, 1898	17.00 "
Apr., 1892	18.53 "	July, 1895	17.00 "	Oct., 1898	17.00 "
July, 1892	18.53 "	Oct., 1895	17.00 "	Jan., 1899	17.00 "
Oct., 1892	18.53 "	Jan., 1896	17.00 "	Apr., 1899	17.00 "
Jan., 1893	18.53 "	Apr., 1896	17.00 "	July, 1899	17.00 "

FELTS: Wet, 24 by 5½ feet, fine Fourdins.

Jan., 1890	\$21.38 each.	Apr., 1893	\$21.17 each.	July, 1896	\$19.04 each.
Apr., 1890	21.38 "	July, 1893	21.17 "	Oct., 1896	19.04 "
July, 1890	21.38 "	Oct., 1893	21.17 "	Jan., 1897	19.04 "
Oct., 1890	21.38 "	Jan., 1894	21.17 "	Apr., 1897	19.04 "
Jan., 1891	21.17 "	Apr., 1894	21.17 "	July, 1897	19.04 "
Apr., 1891	21.17 "	July, 1894	21.17 "	Oct., 1897	19.04 "
July, 1891	21.17 "	Oct., 1894	19.04 "	Jan., 1898	19.04 "
Oct., 1891	21.17 "	Jan., 1895	19.04 "	Apr., 1898	19.04 "
Jan., 1892	21.17 "	Apr., 1895	19.04 "	July, 1898	19.04 "
Apr., 1892	21.17 "	July, 1895	19.04 "	Oct., 1898	19.04 "
July, 1892	21.17 "	Oct., 1895	19.04 "	Jan., 1899	19.04 "
Oct., 1892	21.17 "	Jan., 1896	19.04 "	Apr., 1899	19.04 "
Jan., 1893	21.17 "	Apr., 1896	19.04 "	July, 1899	19.04 "

FLANNELS: Twilled blue, 3-4, Talbot T.

Jan., 1890	\$0.308750 per yard.	Apr., 1893	\$0.302250 per yard.	July, 1896	\$0.214500 per yard.
Apr., 1890	.325000 " "	July, 1893	.302250 " "	Oct., 1896	.214500 " "
July, 1890	.260000 " "	Oct., 1893	.302250 " "	Jan., 1897	.218250 " "
Oct., 1890	.300625 " "	Jan., 1894	.279000 " "	Apr., 1897	.218250 " "
Jan., 1891	.300625 " "	Apr., 1894	.249900 " "	July, 1897	.218250 " "
Apr., 1891	.300625 " "	July, 1894	.249900 " "	Oct., 1897	.242500 " "
July, 1891	.300625 " "	Oct., 1894	.249900 " "	Jan., 1898	.242500 " "
Oct., 1891	.300625 " "	Jan., 1895	.240760 " "	Apr., 1898	.242500 " "
Jan., 1892	.302250 " "	Apr., 1895	.226420 " "	July, 1898	.242500 " "
Apr., 1892	.302250 " "	July, 1895	.229980 " "	Oct., 1898	.252200 " "
July, 1892	.302250 " "	Oct., 1895	.229980 " "	Jan., 1899	.252200 " "
Oct., 1892	.302250 " "	Jan., 1896	.211130 " "	Apr., 1899	.232900 " "
Jan., 1893	.279000 " "	Apr., 1896	.214500 " "	July, 1899	.232900 " "

GINGHAMS: Amoskeag.

Jan., 1890	\$0.06½ per yard.	Apr., 1893	\$0.06½ per yard.	July, 1896	\$0.04½ per yard.
Apr., 1890	.06½ " "	July, 1893	.06½ " "	Oct., 1896	.04½ " "
July, 1890	.06½ " "	Oct., 1893	.06½ " "	Jan., 1897	.04½ " "
Oct., 1890	.06½ " "	Jan., 1894	.06½ " "	Apr., 1897	.04½ " "
Jan., 1891	.06½ " "	Apr., 1894	.04½ " "	July, 1897	.04½ " "
Apr., 1891	.06½ " "	July, 1894	.04½ " "	Oct., 1897	.04½ " "
July, 1891	.06½ " "	Oct., 1894	.04½ " "	Jan., 1898	.04½ " "
Oct., 1891	.06½ " "	Jan., 1895	.04½ " "	Apr., 1898	.04½ " "
Jan., 1892	.06½ " "	Apr., 1895	.04½ " "	July, 1898	.04½ " "
Apr., 1892	.06½ " "	July, 1895	.04½ " "	Oct., 1898	.04½ " "
July, 1892	.06½ " "	Oct., 1895	.05 " "	Jan., 1899	.04½ " "
Oct., 1892	.06½ " "	Jan., 1896	.06½ " "	Apr., 1899	.04½ " "
Jan., 1893	.06½ " "	Apr., 1896	.04½ " "	July, 1899	.05 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

CLOTHS AND CLOTHING—Continued.

LEATHER: Harness.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.30 per pound.	Apr., 1893	\$0.25 per pound.	July, 1896	\$0.29 per pound.
Apr., 1890	.29 " "	July, 1893	.25 " "	Oct., 1896	.30 " "
July, 1890	.29 " "	Oct., 1893	.24 " "	Jan., 1897	.32 " "
Oct., 1890	.31 " "	Jan., 1894	.24 " "	Apr., 1897	.33 " "
Jan., 1891	.80 " "	Apr., 1894	.24 " "	July, 1897	.34 " "
Apr., 1891	.31 " "	July, 1894	.24 " "	Oct., 1897	.32 " "
July, 1891	.28 " "	Oct., 1894	.25 " "	Jan., 1898	.29 " "
Oct., 1891	.29 " "	Jan., 1895	.25 " "	Apr., 1898	.30 " "
Jan., 1892	.30 " "	Apr., 1895	.25 " "	July, 1898	.31 " "
Apr., 1892	.29 " "	July, 1895	.29 " "	Oct., 1898	.31 " "
July, 1892	.27 " "	Oct., 1895	.30 " "	Jan., 1899	.30 " "
Oct., 1892	.26 " "	Jan., 1896	.31 " "	Apr., 1899	.31 " "
Jan., 1893	.25 " "	Apr., 1896	.30 " "	July, 1899	.33 " "

LEATHER: Hides, dry, Buenos Ayres.

Jan., 1890	\$0.1412 per pound.	Apr., 1893	\$0.1250 per pound.	July, 1896	\$0.1600 per pound.
Apr., 1890	.1412 " "	July, 1893	.1150 " "	Oct., 1896	.1600 " "
July, 1890	.1412 " "	Oct., 1893	.1100 " "	Jan., 1897	.1800 " "
Oct., 1890	.1412 " "	Jan., 1894	.1050 " "	Apr., 1897	.1850 " "
Jan., 1891	.1341 " "	Apr., 1894	.1100 " "	July, 1897	.1850 " "
Apr., 1891	.1341 " "	July, 1894	.1050 " "	Oct., 1897	.2000 " "
July, 1891	.1341 " "	Oct., 1894	.1050 " "	Jan., 1898	.2000 " "
Oct., 1891	.1341 " "	Jan., 1895	.1200 " "	Apr., 1898	.2000 " "
Jan., 1892	.1300 " "	Apr., 1895	.1350 " "	July, 1898	.2000 " "
Apr., 1892	.1275 " "	July, 1895	.2100 " "	Oct., 1898	.2100 " "
July, 1892	.1225 " "	Oct., 1895	.2400 " "	Jan., 1899	.2000 " "
Oct., 1892	.1275 " "	Jan., 1896	.1800 " "	Apr., 1899	.1900 " "
Jan., 1893	.1275 " "	Apr., 1896	.1700 " "	July, 1899	.2100 " "

LEATHER: Sole, first quality, medium weight, Buenos Ayres.

Jan., 1890	\$0.1900 per pound.	Apr., 1893	\$0.1900 per pound.	July, 1896	\$0.1850 per pound.
Apr., 1890	.1900 " "	July, 1893	.1900 " "	Oct., 1896	.1850 " "
July, 1890	.1900 " "	Oct., 1893	.1900 " "	Jan., 1897	.2000 " "
Oct., 1890	.1900 " "	Jan., 1894	.1850 " "	Apr., 1897	.2200 " "
Jan., 1891	.1852 " "	Apr., 1894	.1850 " "	July, 1897	.2000 " "
Apr., 1891	.1852 " "	July, 1894	.1700 " "	Oct., 1897	.2200 " "
July, 1891	.1852 " "	Oct., 1894	.1650 " "	Jan., 1898	.2100 " "
Oct., 1891	.1852 " "	Jan., 1895	.1650 " "	Apr., 1898	.2100 " "
Jan., 1892	.1800 " "	Apr., 1895	.1700 " "	July, 1898	.2100 " "
Apr., 1892	.1750 " "	July, 1895	.2300 " "	Oct., 1898	.2000 " "
July, 1892	.1800 " "	Oct., 1895	.2400 " "	Jan., 1899	.2100 " "
Oct., 1892	.1800 " "	Jan., 1896	.2200 " "	Apr., 1899	.2200 " "
Jan., 1893	.1750 " "	Apr., 1896	.1800 " "	July, 1899	.2200 " "

PRINT CLOTHS: 28-inch, 64 by 64, Metacomet.

Jan., 1893	\$0.085000 per yard.	Apr., 1893	\$0.088750 per yard.	July, 1896	\$0.024962 per yard.
Apr., 1890	.082500 " "	July, 1893	.082500 " "	Oct., 1896	.025658 " "
July, 1890	.083750 " "	Oct., 1893	.027500 " "	Jan., 1897	.025000 " "
Oct., 1890	.083125 " "	Jan., 1894	.029375 " "	Apr., 1897	.025625 " "
Jan., 1891	.080000 " "	Apr., 1894	.028125 " "	July, 1897	.024375 " "
Apr., 1891	.080000 " "	July, 1894	.026875 " "	Oct., 1897	.025000 " "
July, 1891	.029375 " "	Oct., 1894	.030000 " "	Jan., 1898	.022500 " "
Oct., 1891	.080000 " "	Jan., 1895	.026875 " "	Apr., 1898	.020000 " "
Jan., 1892	.080625 " "	Apr., 1895	.025000 " "	July, 1898	.019375 " "
Apr., 1892	.080625 " "	July, 1895	.028750 " "	Oct., 1898	.020000 " "
July, 1892	.083750 " "	Oct., 1895	.032600 " "	Jan., 1899	.023750 " "
Oct., 1892	.086000 " "	Jan., 1896	.029375 " "	Apr., 1899	.027500 " "
Jan., 1893	.040000 " "	Apr., 1896	.025000 " "	July, 1899	.027500 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

CLOTHS AND CLOTHING—Continued.

SHAWLS: Standard, 72 by 144 inches, weighing 42 ounces, made of XX Ohio fleece wool.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$4.46½ each.	Apr., 1893	\$4.33½ each.	July, 1896	\$3.55½ each.
Apr., 1890	4.46½ "	July, 1893	4.33½ "	Oct., 1896	3.55½ "
July, 1890	4.46½ "	Oct., 1893	4.33½ "	Jan., 1897	3.55½ "
Oct., 1890	4.46½ "	Jan., 1894	4.12½ "	Apr., 1897	3.55½ "
Jan., 1891	4.41½ "	Apr., 1894	4.12½ "	July, 1897	3.55½ "
Apr., 1891	4.41½ "	July, 1894	4.12½ "	Oct., 1897	3.55½ "
July, 1891	4.41½ "	Oct., 1894	4.12½ "	Jan., 1898	3.60 "
Oct., 1891	4.41½ "	Jan., 1895	3.46 "	Apr., 1898	3.60 "
Jan., 1892	4.33½ "	Apr., 1895	3.46 "	July, 1898	3.60 "
Apr., 1892	4.33½ "	July, 1895	3.46 "	Oct., 1898	3.60 "
July, 1892	4.33½ "	Oct., 1895	3.46 "	Jan., 1899	3.60 "
Oct., 1892	4.33½ "	Jan., 1896	3.55½ "	Apr., 1899	3.60 "
Jan., 1893	4.33½ "	Apr., 1896	2.53½ "	July, 1899	3.60 "

SHEETINGS: Brown, 4-4, Atlantic.

Jan., 1890	\$0.06025 per yard.	Apr., 1893	\$0.05600 per yard.	July, 1896	\$0.06250 per yard.
Apr., 1890	.06025 " "	July, 1893	.06250 " "	Oct., 1896	.06250 " "
July, 1890	.06025 " "	Oct., 1893	.06125 " "	Jan., 1897	.06500 " "
Oct., 1890	.06875 " "	Jan., 1894	.06000 " "	Apr., 1897	.04750 " "
Jan., 1891	.06800 " "	Apr., 1894	.05625 " "	July, 1897	.04875 " "
Apr., 1891	.06700 " "	July, 1894	.05625 " "	Oct., 1897	.04875 " "
July, 1891	.06600 " "	Oct., 1894	.05125 " "	Jan., 1898	.04750 " "
Oct., 1891	.06300 " "	Jan., 1895	.05000 " "	Apr., 1898	.04500 " "
Jan., 1892	.05910 " "	Apr., 1895	.05000 " "	July, 1898	.04375 " "
Apr., 1892	.06040 " "	July, 1895	.05000 " "	Oct., 1898	.04500 " "
July, 1892	.05800 " "	Oct., 1895	.05750 " "	Jan., 1899	.04250 " "
Oct., 1892	.05600 " "	Jan., 1896	.05750 " "	Apr., 1899	.04625 " "
Jan., 1893	.05900 " "	Apr., 1896	.05500 " "	July, 1899	.04750 " "

SHEETINGS: 36-inch, Stark AA.

Jan., 1890	\$0.0654 per yard.	Apr., 1893	\$0.0663 per yard.	July, 1896	\$0.0619 per yard.
Apr., 1890	.0631 " "	July, 1893	.0545 " "	Oct., 1896	.0607 " "
July, 1890	.0674 " "	Oct., 1893	.0548 " "	Jan., 1897	.0492 " "
Oct., 1890	.0670 " "	Jan., 1894	.0529 " "	Apr., 1897	.0453 " "
Jan., 1891	.0661 " "	Apr., 1894	.0501 " "	July, 1897	.0455 " "
Apr., 1891	.0615 " "	July, 1894	.0492 " "	Oct., 1897	.0425 " "
July, 1891	.0594 " "	Oct., 1894	.0503 " "	Jan., 1898	.0397 " "
Oct., 1891	.0541 " "	Jan., 1895	.0535 " "	Apr., 1898	.0435 " "
Jan., 1892	.0566 " "	Apr., 1895	.0462 " "	July, 1898	.0448 " "
Apr., 1892	.0547 " "	July, 1895	.0467 " "	Oct., 1898	.0402 " "
July, 1892	.0534 " "	Oct., 1895	.0566 " "	Jan., 1899	.0417 " "
Oct., 1892	.0515 " "	Jan., 1896	.0542 " "	Apr., 1899	.0482 " "
Jan., 1893	.0590 " "	Apr., 1896	.0625 " "	July, 1899	.0450 " "

SHIRTINGS: Bleached, 4-4, Fruit of the Loom.

Jan., 1890	\$0.083125 per yard.	Apr., 1893	\$0.083790 per yard.	July, 1896	\$0.061250 per yard.
Apr., 1890	.083125 " "	July, 1893	.079135 " "	Oct., 1896	.063700 " "
July, 1890	.085500 " "	Oct., 1893	.079135 " "	Jan., 1897	.063700 " "
Oct., 1890	.085500 " "	Jan., 1894	.073696 " "	Apr., 1897	.061250 " "
Jan., 1891	.083125 " "	Apr., 1894	.071050 " "	July, 1897	.063650 " "
Apr., 1891	.083125 " "	July, 1894	.072153 " "	Oct., 1897	.063350 " "
July, 1891	.081050 " "	Oct., 1894	.069825 " "	Jan., 1898	.068800 " "
Oct., 1891	.083125 " "	Jan., 1895	.069825 " "	Apr., 1898	.068800 " "
Jan., 1892	.078731 " "	Apr., 1895	.063700 " "	July, 1898	.063650 " "
Apr., 1892	.078731 " "	July, 1895	.066170 " "	Oct., 1898	.063650 " "
July, 1892	.079135 " "	Oct., 1895	.074480 " "	Jan., 1899	.059900 " "
Oct., 1892	.079135 " "	Jan., 1896	.079135 " "	Apr., 1899	.068700 " "
Jan., 1893	.083790 " "	Apr., 1896	.072153 " "	July, 1899	.068700 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

CLOTHS AND CLOTHING—Continued.

SHIRTINGS: Bleached, 4-4, Hope.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.0712 per yard.	Apr., 1893	\$0.0713 per yard.	July, 1896	\$0.0570 per yard.
Apr., 1890	.0712 " "	July, 1893	.0665 " "	Oct., 1896	.0618 " "
July, 1890	.0736 " "	Oct., 1893	.0665 " "	Jan., 1897	.0618 " "
Oct., 1890	.0736 " "	Jan., 1894	.0632 " "	Apr., 1897	.0570 " "
Jan., 1891	.0712 " "	Apr., 1894	.0618 " "	July, 1897	.0570 " "
Apr., 1891	.0712 " "	July, 1894	.0618 " "	Oct., 1897	.0570 " "
July, 1891	.0689 " "	Oct., 1894	.0618 " "	Jan., 1898	.0563 " "
Oct., 1891	.0689 " "	Jan., 1895	.0546 " "	Apr., 1898	.0533 " "
Jan., 1892	.0665 " "	Apr., 1895	.0546 " "	July, 1898	.0509 " "
Apr., 1892	.0665 " "	July, 1895	.0594 " "	Oct., 1898	.0509 " "
July, 1892	.0641 " "	Oct., 1895	.0689 " "	Jan., 1899	.0486 " "
Oct., 1892	.0665 " "	Jan., 1896	.0713 " "	Apr., 1899	.0523 " "
Jan., 1893	.0713 " "	Apr., 1896	.0594 " "	July, 1899	.0546 " "

SHIRTINGS: Bleached, 4-4, Lonsdale.

Jan., 1890	\$0.0831 per yard.	Apr., 1893	\$0.0855 per yard.	July, 1896	\$0.0618 per yard.
Apr., 1890	.0831 " "	July, 1893	.0808 " "	Oct., 1896	.0665 " "
July, 1890	.0855 " "	Oct., 1893	.0808 " "	Jan., 1897	.0665 " "
Oct., 1890	.0855 " "	Jan., 1894	.0741 " "	Apr., 1897	.0611 " "
Jan., 1891	.0808 " "	Apr., 1894	.0736 " "	July, 1897	.0632 " "
Apr., 1891	.0831 " "	July, 1894	.0736 " "	Oct., 1897	.0641 " "
July, 1891	.0808 " "	Oct., 1894	.0713 " "	Jan., 1898	.0688 " "
Oct., 1891	.0808 " "	Jan., 1895	.0618 " "	Apr., 1898	.0688 " "
Jan., 1892	.0808 " "	Apr., 1895	.0641 " "	July, 1898	.0561 " "
Apr., 1892	.0808 " "	July, 1895	.0689 " "	Oct., 1898	.0561 " "
July, 1892	.0808 " "	Oct., 1895	.0784 " "	Jan., 1899	.0538 " "
Oct., 1892	.0808 " "	Jan., 1896	.0808 " "	Apr., 1899	.0585 " "
Jan., 1893	.0855 " "	Apr., 1896	.0665 " "	July, 1899	.0635 " "

SHIRTINGS: Bleached, 4-4, New York Mills.

Jan., 1890	\$0.10210 per yard.	Apr., 1893	\$0.09726 per yard.	July, 1896	\$0.09025 per yard.
Apr., 1890	.10210 " "	July, 1893	.09476 " "	Oct., 1896	.0925 " "
July, 1890	.10450 " "	Oct., 1893	.09025 " "	Jan., 1897	.08500 " "
Oct., 1890	.10450 " "	Jan., 1894	.09025 " "	Apr., 1897	.08500 " "
Jan., 1891	.10450 " "	Apr., 1894	.09025 " "	July, 1897	.09025 " "
Apr., 1891	.10210 " "	July, 1894	.09025 " "	Oct., 1897	.09025 " "
July, 1891	.09975 " "	Oct., 1894	.09025 " "	Jan., 1898	.08000 " "
Oct., 1891	.09975 " "	Jan., 1895	.09025 " "	Apr., 1898	.06000 " "
Jan., 1892	.09726 " "	Apr., 1895	.08574 " "	July, 1898	.06000 " "
Apr., 1892	.09726 " "	July, 1895	.08574 " "	Oct., 1898	.08000 " "
July, 1892	.09726 " "	Oct., 1895	.08574 " "	Jan., 1899	.08000 " "
Oct., 1892	.09726 " "	Jan., 1896	.09025 " "	Apr., 1899	.08000 " "
Jan., 1893	.09726 " "	Apr., 1896	.09025 " "	July, 1899	.08799 " "

SUITINGS: All wool, indigo blue, 54-inch, 14-ounce, Middlesex standard.

Jan., 1890	\$1.70 per yard.	Apr., 1893	\$1.70 per yard.	July, 1896	\$1.25 per yard.
Apr., 1890	1.70 " "	July, 1893	1.61 " "	Oct., 1896	1.25 " "
July, 1890	1.70 " "	Oct., 1893	1.61 " "	Jan., 1897	1.15 " "
Oct., 1890	1.70 " "	Jan., 1894	1.61 " "	Apr., 1897	1.15 " "
Jan., 1891	1.70 " "	Apr., 1894	1.61 " "	July, 1897	1.15 " "
Apr., 1891	1.70 " "	July, 1894	1.61 " "	Oct., 1897	1.15 " "
July, 1891	1.70 " "	Oct., 1894	1.61 " "	Jan., 1898	1.25 " "
Oct., 1891	1.70 " "	Jan., 1895	1.28 " "	Apr., 1898	1.25 " "
Jan., 1892	1.70 " "	Apr., 1895	1.28 " "	July, 1898	1.25 " "
Apr., 1892	1.70 " "	July, 1895	1.25 " "	Oct., 1898	1.25 " "
July, 1892	1.70 " "	Oct., 1895	1.25 " "	Jan., 1899	1.25 " "
Oct., 1892	1.70 " "	Jan., 1896	1.25 " "	Apr., 1899	1.25 " "
Jan., 1893	1.70 " "	Apr., 1896	1.25 " "	July, 1899	1.25 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

CLOTHS AND CLOTHING—Continued.

TICKINGS: Amoskeag, A. C. A.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.12 per yard.	Apr., 1893	\$0.12 per yard.	July, 1896	\$0.10 per yard.
Apr., 1890	.12 " "	July, 1893	.12 " "	Oct., 1896	.10 " "
July, 1890	.11 " "	Oct., 1893	.11 " "	Jan., 1897	.10 " "
Oct., 1890	.12 " "	Jan., 1894	.11 " "	Apr., 1897	.09 " "
Jan., 1891	.12 " "	Apr., 1894	.10 " "	July, 1897	.09 " "
Apr., 1891	.11 " "	July, 1894	.10 " "	Oct., 1897	.09 " "
July, 1891	.11 " "	Oct., 1894	.10 " "	Jan., 1898	.09 " "
Oct., 1891	.11 " "	Jan., 1895	.09 " "	Apr., 1898	.09 " "
Jan., 1892	.11 " "	Apr., 1895	.09 " "	July, 1898	.09 " "
Apr., 1892	.11 " "	July, 1895	.10 " "	Oct., 1898	.08 " "
July, 1892	.11 " "	Oct., 1895	.10 " "	Jan., 1899	.09 " "
Oct., 1892	.11 " "	Jan., 1896	.11 " "	Apr., 1899	.09 " "
Jan., 1893	.11 " "	Apr., 1896	.09 " "	July, 1899	.09 " "

WOMEN'S DRESS GOODS: Cotton warp alpaca, 22-inch, Hamilton.

Jan., 1890	\$0.07½ per yard.	Apr., 1893	\$0.07½ per yard.	July, 1896	\$0.06½ per yard.
Apr., 1890	.07½ " "	July, 1893	.07½ " "	Oct., 1896	.06½ " "
July, 1890	.07½ " "	Oct., 1893	.07½ " "	Jan., 1897	.06½ " "
Oct., 1890	.07½ " "	Jan., 1894	.07 " "	Apr., 1897	.06½ " "
Jan., 1891	.07½ " "	Apr., 1894	.07 " "	July, 1897	.06½ " "
Apr., 1891	.07½ " "	July, 1894	.07 " "	Oct., 1897	.06½ " "
July, 1891	.07½ " "	Oct., 1894	.07 " "	Jan., 1898	.06½ " "
Oct., 1891	.07½ " "	Jan., 1895	.06½ " "	Apr., 1898	.06½ " "
Jan., 1892	.07½ " "	Apr., 1895	.06½ " "	July, 1898	.06½ " "
Apr., 1892	.07½ " "	July, 1895	.06½ " "	Oct., 1898	.06½ " "
July, 1892	.07½ " "	Oct., 1895	.06½ " "	Jan., 1899	.06½ " "
Oct., 1892	.07½ " "	Jan., 1896	.06½ " "	Apr., 1899	.06½ " "
Jan., 1893	.07½ " "	Apr., 1896	.06½ " "	July, 1899	.06½ " "

WOMEN'S DRESS GOODS: Cotton warp cashmere, 22-inch, Hamilton.

Jan., 1890	\$0.08½ per yard.	Apr., 1893	\$0.08½ per yard.	July, 1896	\$0.07 per yard.
Apr., 1890	.08½ " "	July, 1893	.08½ " "	Oct., 1896	.07 " "
July, 1890	.08½ " "	Oct., 1893	.08½ " "	Jan., 1897	.07 " "
Oct., 1890	.08½ " "	Jan., 1894	.07½ " "	Apr., 1897	.07 " "
Jan., 1891	.08½ " "	Apr., 1894	.07½ " "	July, 1897	.07 " "
Apr., 1891	.08½ " "	July, 1894	.07½ " "	Oct., 1897	.07 " "
July, 1891	.08½ " "	Oct., 1894	.07½ " "	Jan., 1898	.07 " "
Oct., 1891	.08½ " "	Jan., 1895	.07½ " "	Apr., 1898	.07 " "
Jan., 1892	.08½ " "	Apr., 1895	.07½ " "	July, 1898	.07 " "
Apr., 1892	.08½ " "	July, 1895	.07½ " "	Oct., 1898	.07 " "
July, 1892	.08½ " "	Oct., 1895	.07½ " "	Jan., 1899	.07 " "
Oct., 1892	.08½ " "	Jan., 1896	.07½ " "	Apr., 1899	.07 " "
Jan., 1893	.08½ " "	Apr., 1896	.07½ " "	July, 1899	.07 " "

WOMEN'S DRESS GOODS: Cotton warp cashmere, 27-inch, Hamilton.

Jan., 1890	\$0.10 per yard.	Apr., 1893	\$0.09½ per yard.	July, 1896	\$0.08½ per yard.
Apr., 1890	.10 " "	July, 1893	.09½ " "	Oct., 1896	.08 " "
July, 1890	.10 " "	Oct., 1893	.09½ " "	Jan., 1897	.08 " "
Oct., 1890	.10 " "	Jan., 1894	.09½ " "	Apr., 1897	.08 " "
Jan., 1891	.10 " "	Apr., 1894	.09½ " "	July, 1897	.08 " "
Apr., 1891	.10 " "	July, 1894	.09½ " "	Oct., 1897	.08 " "
July, 1891	.10 " "	Oct., 1894	.09½ " "	Jan., 1898	.08 " "
Oct., 1891	.10 " "	Jan., 1895	.08½ " "	Apr., 1898	.08 " "
Jan., 1892	.10 " "	Apr., 1895	.08½ " "	July, 1898	.08 " "
Apr., 1892	.10 " "	July, 1895	.08½ " "	Oct., 1898	.08 " "
July, 1892	.09½ " "	Oct., 1895	.08½ " "	Jan., 1899	.08 " "
Oct., 1892	.09½ " "	Jan., 1896	.08½ " "	Apr., 1899	.08½ " "
Jan., 1893	.09½ " "	Apr., 1896	.08½ " "	July, 1899	.08½ " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY,
1899—Continued.

CLOTHS AND CLOTHING—Concluded.

WOOL: Ohio, fine fleece, scoured.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.73½ per pound.	Apr., 1893	\$0.66½ per pound.	July, 1896	\$0.37½ per pound.
Apr., 1890	.73½ " "	July, 1893	.53½ " "	Oct., 1896	.40 " "
July, 1890	.73½ " "	Oct., 1893	.51 " "	Jan., 1897	.42½ " "
Oct., 1890	.73½ " "	Jan., 1894	.51 " "	Apr., 1897	.46½ " "
Jan., 1891	.73½ " "	Apr., 1894	.46½ " "	July, 1897	.47½ " "
Apr., 1891	.71 " "	July, 1894	.44½ " "	Oct., 1897	.60 " "
July, 1891	.68½ " "	Oct., 1894	.42½ " "	Jan., 1898	.64½ " "
Oct., 1891	.68½ " "	Jan., 1895	.38½ " "	Apr., 1898	.64½ " "
Jan., 1892	.66½ " "	Apr., 1895	.36½ " "	July, 1898	.62½ " "
Apr., 1892	.64½ " "	July, 1895	.40 " "	Oct., 1898	.63½ " "
July, 1892	.62½ " "	Oct., 1895	.40 " "	Jan., 1899	.58½ " "
Oct., 1892	.64½ " "	Jan., 1896	.42½ " "	Apr., 1899	.55½ " "
Jan., 1893	.64½ " "	Apr., 1896	.42½ " "	July, 1899	.63½ " "

WOOL: Ohio, medium fleece, scoured.

Jan., 1890	\$0.59½ per pound.	Apr., 1893	\$0.51½ per pound.	July, 1896	\$0.29 per pound.
Apr., 1890	.58 " "	July, 1893	.42 " "	Oct., 1896	.30½ " "
July, 1890	.59½ " "	Oct., 1893	.38½ " "	Jan., 1897	.34 " "
Oct., 1890	.59½ " "	Jan., 1894	.38½ " "	Apr., 1897	.36½ " "
Jan., 1891	.59½ " "	Apr., 1894	.37 " "	July, 1897	.38 " "
Apr., 1891	.59½ " "	July, 1894	.34 " "	Oct., 1897	.46½ " "
July, 1891	.56½ " "	Oct., 1894	.34 " "	Jan., 1898	.48½ " "
Oct., 1891	.56½ " "	Jan., 1895	.32½ " "	Apr., 1898	.47½ " "
Jan., 1892	.56½ " "	Apr., 1895	.32½ " "	July, 1898	.46½ " "
Apr., 1892	.54½ " "	July, 1895	.34 " "	Oct., 1898	.48½ " "
July, 1892	.54½ " "	Oct., 1895	.34 " "	Jan., 1899	.46½ " "
Oct., 1892	.53½ " "	Jan., 1896	.34½ " "	Apr., 1899	.45 " "
Jan., 1893	.53½ " "	Apr., 1896	.34 " "	July, 1899	.50 " "

FUEL AND LIGHTING.

CANDLES: Best adamantine.

Jan., 1890	\$0.12 per pound.	Apr., 1893	\$0.13 per pound.	July, 1896	\$0.12 per pound.
Apr., 1890	.13 " "	July, 1893	.13 " "	Oct., 1896	.12 " "
July, 1890	.13 " "	Oct., 1893	.13 " "	Jan., 1897	.12 " "
Oct., 1890	.13 " "	Jan., 1894	.13 " "	Apr., 1897	.12 " "
Jan., 1891	.13 " "	Apr., 1894	.13 " "	July, 1897	.12 " "
Apr., 1891	.13 " "	July, 1894	.13 " "	Oct., 1897	.12 " "
July, 1891	.13 " "	Oct., 1894	.13 " "	Jan., 1898	.12 " "
Oct., 1891	.12 " "	Jan., 1895	.13 " "	Apr., 1898	.12 " "
Jan., 1892	.12 " "	Apr., 1895	.12 " "	July, 1898	.12 " "
Apr., 1892	.12 " "	July, 1895	.12 " "	Oct., 1898	.12 " "
July, 1892	.12 " "	Oct., 1895	.12 " "	Jan., 1899	.12 " "
Oct., 1892	.12 " "	Jan., 1896	.12 " "	Apr., 1899	.12 " "
Jan., 1893	.13 " "	Apr., 1896	.12 " "	July, 1899	.12 " "

COAL: Anthracite, pea.

Jan., 1890	\$2.75 per ton.	Apr., 1893	\$2.75 per ton.	July, 1896	\$2.85 per ton.
Apr., 1890	3.25 " "	July, 1893	2.85 " "	Oct., 1896	2.85 " "
July, 1890	3.25 " "	Oct., 1893	2.85 " "	Jan., 1897	2.65 " "
Oct., 1890	3.00 " "	Jan., 1894	3.00 " "	Apr., 1897	2.85 " "
Jan., 1891	3.00 " "	Apr., 1894	3.00 " "	July, 1897	2.65 " "
Apr., 1891	3.00 " "	July, 1894	3.00 " "	Oct., 1897	2.65 " "
July, 1891	3.00 " "	Oct., 1894	3.00 " "	Jan., 1898	2.65 " "
Oct., 1891	3.00 " "	Jan., 1895	3.00 " "	Apr., 1898	2.75 " "
Jan., 1892	3.00 " "	Apr., 1895	2.85 " "	July, 1898	2.85 " "
Apr., 1892	2.75 " "	July, 1895	2.85 " "	Oct., 1898	2.75 " "
July, 1892	2.75 " "	Oct., 1895	2.85 " "	Jan., 1899	2.75 " "
Oct., 1892	2.75 " "	Jan., 1896	2.85 " "	Apr., 1899	2.75 " "
Jan., 1893	2.75 " "	Apr., 1896	2.65 " "	July, 1899	2.50 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

METALS AND IMPLEMENTS—Continued.

DOOR KNOBS: Mineral.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.05 per pair.	Apr., 1893	\$0.05 per pair.	July, 1896	\$0.05 per pair.
Apr., 1890	.05 " "	July, 1893	.05 " "	Oct., 1896	.05 " "
July, 1890	.05 " "	Oct., 1893	.05 " "	Jan., 1897	.05 " "
Oct., 1890	.05 " "	Jan., 1894	.05 " "	Apr., 1897	.05 " "
Jan., 1891	.05 " "	Apr., 1894	.05 " "	July, 1897	.05 " "
Apr., 1891	.05 " "	July, 1894	.05 " "	Oct., 1897	.05 " "
July, 1891	.05 " "	Oct., 1894	.05 " "	Jan., 1898	.05 " "
Oct., 1891	.05 " "	Jan., 1895	.05 " "	Apr., 1898	.05 " "
Jan., 1892	.05 " "	Apr., 1895	.05 " "	July, 1898	.05 " "
Apr., 1892	.05 " "	July, 1895	.05 " "	Oct., 1898	.05 " "
July, 1892	.05 " "	Oct., 1895	.05 " "	Jan., 1899	.05 " "
Oct., 1892	.05 " "	Jan., 1896	.05 " "	Apr., 1899	.05 " "
Jan., 1893	.05 " "	Apr., 1896	.05 " "	July, 1899	.06 " "

LEAD: Pig.

Jan., 1890	\$3.85 per 100 pounds.	Apr., 1893	\$3.95 per 100 pounds.	July, 1896	\$3.00 per 100 pounds.
Apr., 1890	3.85 " " "	July, 1893	3.40 " " "	Oct., 1896	2.60 " " "
July, 1890	4.42 " " "	Oct., 1893	3.65 " " "	Jan., 1897	2.90 " " "
Oct., 1890	5.00 " " "	Jan., 1894	3.20 " " "	Apr., 1897	3.20 " " "
Jan., 1891	4.05 " " "	Apr., 1894	3.30 " " "	July, 1897	3.35 " " "
Apr., 1891	4.32 " " "	July, 1894	3.10 " " "	Oct., 1897	4.00 " " "
July, 1891	4.45 " " "	Oct., 1894	3.05 " " "	Jan., 1898	3.55 " " "
Oct., 1891	4.55 " " "	Jan., 1895	3.00 " " "	Apr., 1898	3.50 " " "
Jan., 1892	4.25 " " "	Apr., 1895	3.05 " " "	July, 1898	3.80 " " "
Apr., 1892	4.22 " " "	July, 1895	3.12 " " "	Oct., 1898	3.82 " " "
July, 1892	4.20 " " "	Oct., 1895	3.15 " " "	Jan., 1899	3.70 " " "
Oct., 1892	3.95 " " "	Jan., 1896	3.00 " " "	Apr., 1899	4.15 " " "
Jan., 1893	3.75 " " "	Apr., 1896	3.00 " " "	July, 1899	4.25 " " "

LEAD: Pipe.

Jan., 1890	\$4.80 per 100 pounds.	Apr., 1893	\$5.00 per 100 pounds.	July, 1896	\$3.75 per 100 pounds.
Apr., 1890	4.80 " " "	July, 1893	5.00 " " "	Oct., 1896	3.50 " " "
July, 1890	5.60 " " "	Oct., 1893	5.00 " " "	Jan., 1897	3.60 " " "
Oct., 1890	6.40 " " "	Jan., 1894	5.00 " " "	Apr., 1897	4.20 " " "
Jan., 1891	5.80 " " "	Apr., 1894	4.60 " " "	July, 1897	4.20 " " "
Apr., 1891	5.80 " " "	July, 1894	4.20 " " "	Oct., 1897	5.00 " " "
July, 1891	5.60 " " "	Oct., 1894	4.20 " " "	Jan., 1898	4.40 " " "
Oct., 1891	5.60 " " "	Jan., 1895	4.20 " " "	Apr., 1898	4.40 " " "
Jan., 1892	5.20 " " "	Apr., 1895	4.20 " " "	July, 1898	4.80 " " "
Apr., 1892	5.20 " " "	July, 1895	4.20 " " "	Oct., 1898	4.80 " " "
July, 1892	5.20 " " "	Oct., 1895	4.20 " " "	Jan., 1899	4.80 " " "
Oct., 1892	5.20 " " "	Jan., 1896	4.20 " " "	Apr., 1899	5.40 " " "
Jan., 1893	5.00 " " "	Apr., 1896	4.20 " " "	July, 1899	5.40 " " "

LOCKS: Common mortise.

Jan., 1890	\$0.08 $\frac{1}{2}$ each.	Apr., 1893	\$0.08 $\frac{1}{2}$ each.	July, 1896	\$0.08 $\frac{1}{2}$ each.
Apr., 1890	.08 " "	July, 1893	.08 " "	Oct., 1896	.08 " "
July, 1890	.08 " "	Oct., 1893	.08 " "	Jan., 1897	.08 " "
Oct., 1890	.08 " "	Jan., 1894	.08 " "	Apr., 1897	.08 " "
Jan., 1891	.08 " "	Apr., 1894	.08 " "	July, 1897	.08 " "
Apr., 1891	.08 " "	July, 1894	.08 " "	Oct., 1897	.08 " "
July, 1891	.08 " "	Oct., 1894	.08 " "	Jan., 1898	.08 " "
Oct., 1891	.08 " "	Jan., 1895	.08 " "	Apr., 1898	.08 " "
Jan., 1892	.08 " "	Apr., 1895	.08 " "	July, 1898	.08 " "
Apr., 1892	.08 " "	July, 1895	.09 " "	Oct., 1898	.08 " "
July, 1892	.08 " "	Oct., 1895	.09 " "	Jan., 1899	.08 " "
Oct., 1892	.08 " "	Jan., 1896	.08 " "	Apr., 1899	.09 " "
Jan., 1893	.08 " "	Apr., 1896	.08 " "	July, 1899	.09 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY,
1899—Continued.

METALS AND IMPLEMENTS—Continued.

LOCKS: Common rim.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.07½ each.	Apr., 1893	\$0.07½ each.	July, 1896	\$0.07½ each.
Apr., 1890	.07½ "	July, 1893	.07½ "	Oct., 1896	.07½ "
July, 1890	.07½ "	Oct., 1893	.07½ "	Jan., 1897	.07½ "
Oct., 1890	.07½ "	Jan., 1894	.07½ "	Apr., 1897	.07½ "
Jan., 1891	.07½ "	Apr., 1894	.07½ "	July, 1897	.07½ "
Apr., 1891	.07½ "	July, 1894	.07½ "	Oct., 1897	.07½ "
July, 1891	.07½ "	Oct., 1894	.07½ "	Jan., 1898	.07½ "
Oct., 1891	.07½ "	Jan., 1895	.07½ "	Apr., 1898	.07½ "
Jan., 1892	.07½ "	Apr., 1895	.07½ "	July, 1898	.07½ "
Apr., 1892	.07½ "	July, 1895	.08½ "	Oct., 1898	.07½ "
July, 1892	.07½ "	Oct., 1895	.08½ "	Jan., 1899	.07½ "
Oct., 1892	.07½ "	Jan., 1896	.07½ "	Apr., 1899	.08½ "
Jan., 1893	.07½ "	Apr., 1896	.07½ "	July, 1899	.08½ "

NAILS: Wire, base price.

[Average monthly price at Chicago, carload lots from factory.]

Jan., 1890	\$2.90 per 100-lb. keg.	Apr., 1893	\$1.65 per 100-lb. keg.	July, 1896	\$2.70 per 100-lb. keg.
Apr., 1890	2.40 " " "	July, 1893	1.47 " " "	Oct., 1896	2.70 " " "
July, 1890	2.40 " " "	Oct., 1893	1.40 " " "	Jan., 1897	1.47 " " "
Oct., 1890	2.40 " " "	Jan., 1894	1.17 " " "	Apr., 1897	1.47 " " "
Jan., 1891	2.22 " " "	Apr., 1894	1.00 " " "	July, 1897	1.35 " " "
Apr., 1891	2.12 " " "	July, 1894	1.20 " " "	Oct., 1897	1.54 " " "
July, 1891	2.07 " " "	Oct., 1894	1.05 " " "	Jan., 1898	1.55 " " "
Oct., 1891	1.90 " " "	Jan., 1895	.95 " " "	Apr., 1898	1.47 " " "
Jan., 1892	1.82 " " "	Apr., 1895	.95 " " "	July, 1898	1.36 " " "
Apr., 1892	1.75 " " "	July, 1895	1.95 " " "	Oct., 1898	1.46 " " "
July, 1892	1.75 " " "	Oct., 1895	2.40 " " "	Jan., 1899	1.59 " " "
Oct., 1892	1.57 " " "	Jan., 1896	2.42 " " "	Apr., 1899	2.25 " " "
Jan., 1893	1.57 " " "	Apr., 1896	2.55 " " "	July, 1899	2.70 " " "

PIG IRON: Bessemer.

[Average monthly price at Pittsburg.]

Jan., 1890	\$23.60 per gross ton.	Apr., 1893	\$13.86 per gross ton.	July, 1896	\$12.12 per gross ton.
Apr., 1890	17.85 " " "	July, 1893	13.21 " " "	Oct., 1896	11.71 " " "
July, 1890	18.62 " " "	Oct., 1893	11.60 " " "	Jan., 1897	10.77 " " "
Oct., 1890	17.35 " " "	Jan., 1894	10.90 " " "	Apr., 1897	9.91 " " "
Jan., 1891	15.95 " " "	Apr., 1894	10.49 " " "	July, 1897	9.39 " " "
Apr., 1891	16.10 " " "	July, 1894	12.60 " " "	Oct., 1897	10.70 " " "
July, 1891	16.25 " " "	Oct., 1894	11.02 " " "	Jan., 1898	10.00 " " "
Oct., 1891	15.50 " " "	Jan., 1895	10.06 " " "	Apr., 1898	10.35 " " "
Jan., 1892	15.65 " " "	Apr., 1895	10.69 " " "	July, 1898	10.31 " " "
Apr., 1892	14.50 " " "	July, 1895	14.14 " " "	Oct., 1898	10.40 " " "
July, 1892	14.00 " " "	Oct., 1895	15.77 " " "	Jan., 1899	11.00 " " "
Oct., 1892	13.90 " " "	Jan., 1896	11.81 " " "	Apr., 1899	15.06 " " "
Jan., 1893	13.59 " " "	Apr., 1896	13.32 " " "	July, 1899	20.45 " " "

PIG IRON: No. 1, anthracite, foundry.

[Average monthly price at Philadelphia.]

Jan., 1890	\$19.90 per gross ton.	Apr., 1893	\$14.58 per gross ton.	July, 1896	\$12.75 per gross ton.
Apr., 1890	18.25 " " "	July, 1893	15.00 " " "	Oct., 1896	12.56 " " "
July, 1890	18.00 " " "	Oct., 1893	14.20 " " "	Jan., 1897	12.75 " " "
Oct., 1890	18.00 " " "	Jan., 1894	13.37 " " "	Apr., 1897	12.12 " " "
Jan., 1891	17.50 " " "	Apr., 1894	12.60 " " "	July, 1897	11.75 " " "
Apr., 1891	17.50 " " "	July, 1894	12.50 " " "	Oct., 1897	12.00 " " "
July, 1891	17.50 " " "	Oct., 1894	12.50 " " "	Jan., 1898	12.00 " " "
Oct., 1891	17.75 " " "	Jan., 1895	12.08 " " "	Apr., 1898	11.75 " " "
Jan., 1892	17.50 " " "	Apr., 1895	12.00 " " "	July, 1898	11.25 " " "
Apr., 1892	16.00 " " "	July, 1895	13.60 " " "	Oct., 1898	11.70 " " "
July, 1892	16.00 " " "	Oct., 1895	14.50 " " "	Jan., 1899	12.12 " " "
Oct., 1892	15.00 " " "	Jan., 1896	13.56 " " "	Apr., 1899	16.50 " " "
Jan., 1893	14.80 " " "	Apr., 1896	13.25 " " "	July, 1899	20.37 " " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

METALS AND IMPLEMENTS—Concluded.

STEEL RAILS: Bessemer.

[Average monthly price at mills in eastern Pennsylvania.]

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$35.25 per gross ton.	Apr., 1893	\$29.00 per gross ton.	July, 1896	\$28.00 per gross ton.
Apr., 1890	33.50 " " "	July, 1893	29.00 " " "	Oct., 1896	28.00 " " "
July, 1890	31.50 " " "	Oct., 1893	27.50 " " "	Jan., 1897	25.00 " " "
Oct., 1890	30.00 " " "	Jan., 1894	24.00 " " "	Apr., 1897	18.00 " " "
Jan., 1891	29.00 " " "	Apr., 1894	24.00 " " "	July, 1897	18.00 " " "
Apr., 1891	30.00 " " "	July, 1894	24.00 " " "	Oct., 1897	18.00 " " "
July, 1891	30.00 " " "	Oct., 1894	24.00 " " "	Jan., 1898	18.00 " " "
Oct., 1891	30.00 " " "	Jan., 1895	22.00 " " "	Apr., 1898	18.00 " " "
Jan., 1892	30.00 " " "	Apr., 1895	22.00 " " "	July, 1898	17.00 " " "
Apr., 1892	30.00 " " "	July, 1895	24.00 " " "	Oct., 1898	17.50 " " "
July, 1892	30.00 " " "	Oct., 1895	28.00 " " "	Jan., 1899	18.50 " " "
Oct., 1892	30.00 " " "	Jan., 1896	28.00 " " "	Apr., 1899	25.75 " " "
Jan., 1893	29.00 " " "	Apr., 1896	28.00 " " "	July, 1899	28.25 " " "

LUMBER AND BUILDING MATERIALS.

BRICK: Common domestic building.

Jan., 1890	\$7.25 per M.	Apr., 1893	\$6.83 per M.	July, 1896	\$4.70 per M.
Apr., 1890	7.12½ " " "	July, 1893	5.40 " " "	Oct., 1896	4.70 " " "
July, 1890	5.75 " " "	Oct., 1893	5.25 " " "	Jan., 1897	5.00 " " "
Oct., 1890	6.50 " " "	Jan., 1894	5.65 " " "	Apr., 1897	4.50 " " "
Jan., 1891	6.00 " " "	Apr., 1894	5.00 " " "	July, 1897	4.37½ " " "
Apr., 1891	5.50 " " "	July, 1894	4.62½ " " "	Oct., 1897	5.12½ " " "
July, 1891	5.12½ " " "	Oct., 1894	4.75 " " "	Jan., 1898	6.00 " " "
Oct., 1891	5.50 " " "	Jan., 1895	5.80 " " "	Apr., 1898	5.50 " " "
Jan., 1892	5.90 " " "	Apr., 1895	5.37½ " " "	July, 1898	5.37½ " " "
Apr., 1892	5.70 " " "	July, 1895	4.75 " " "	Oct., 1898	5.75 " " "
July, 1892	5.40 " " "	Oct., 1895	5.12½ " " "	Jan., 1899	6.25 " " "
Oct., 1892	5.50 " " "	Jan., 1896	5.50 " " "	Apr., 1899	5.87½ " " "
Jan., 1893	6.40 " " "	Apr., 1896	5.12½ " " "	July, 1899	5.25 " " "

CARBONATE OF LEAD: In oil (American pure white lead).

Jan., 1890	\$7.00 per 100 lbs.	Apr., 1893	\$5.75 per 100 lbs.	July, 1896	\$5.25 per 100 lbs.
Apr., 1890	7.25 " " "	July, 1893	6.25 " " "	Oct., 1896	5.25 " " "
July, 1890	6.25 " " "	Oct., 1893	6.50 " " "	Jan., 1897	5.25 " " "
Oct., 1890	6.75 " " "	Jan., 1894	5.75 " " "	Apr., 1897	5.25 " " "
Jan., 1891	7.00 " " "	Apr., 1894	5.12½ " " "	July, 1897	5.25 " " "
Apr., 1891	6.50 " " "	July, 1894	5.12½ " " "	Oct., 1897	5.25 " " "
July, 1891	6.75 " " "	Oct., 1894	5.25 " " "	Jan., 1898	5.50 " " "
Oct., 1891	6.75 " " "	Jan., 1895	5.25 " " "	Apr., 1898	5.50 " " "
Jan., 1892	6.75 " " "	Apr., 1895	5.00 " " "	July, 1898	5.50 " " "
Apr., 1892	6.75 " " "	July, 1895	5.50 " " "	Oct., 1898	5.50 " " "
July, 1892	6.75 " " "	Oct., 1895	5.50 " " "	Jan., 1899	5.50 " " "
Oct., 1892	6.75 " " "	Jan., 1896	5.50 " " "	Apr., 1899	5.75 " " "
Jan., 1893	6.75 " " "	Apr., 1896	5.25 " " "	July, 1899	5.75 " " "

CEMENT: Rosendale.

Jan., 1890	\$0.90 per barrel.	Apr., 1893	\$0.80 per barrel.	July, 1896	\$0.72½ per barrel.
Apr., 1890	.80 " " "	July, 1893	.77½ " " "	Oct., 1896	.75 " " "
July, 1890	.80 " " "	Oct., 1893	.80 " " "	Jan., 1897	.80 " " "
Oct., 1890	.85 " " "	Jan., 1894	.85 " " "	Apr., 1897	.72½ " " "
Jan., 1891	.85 " " "	Apr., 1894	.77½ " " "	July, 1897	.70 " " "
Apr., 1891	.85 " " "	July, 1894	.75 " " "	Oct., 1897	.70 " " "
July, 1891	.85 " " "	Oct., 1894	.75 " " "	Jan., 1898	.72½ " " "
Oct., 1891	.85 " " "	Jan., 1895	.85 " " "	Apr., 1898	.70 " " "
Jan., 1892	.90 " " "	Apr., 1895	.77½ " " "	July, 1898	.67½ " " "
Apr., 1892	.80 " " "	July, 1895	.75 " " "	Oct., 1898	.70 " " "
July, 1892	.80 " " "	Oct., 1895	.75 " " "	Jan., 1899	.75 " " "
Oct., 1892	.80 " " "	Jan., 1896	.82½ " " "	Apr., 1899	.70 " " "
Jan., 1893	.85 " " "	Apr., 1896	.75 " " "	July, 1899	.80 " " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY,
1899—Continued.

LUMBER AND BUILDING MATERIALS—Continued.

CHESTNUT: Lumber, in the log, not sawed.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$12.00 per M feet.	Apr., 1893	\$9.00 per M feet.	July, 1896	\$9.00 per M feet.
Apr., 1890	12.00 " "	July, 1893	9.00 " "	Oct., 1896	9.00 " "
July, 1890	12.00 " "	Oct., 1893	9.00 " "	Jan., 1897	9.00 " "
Oct., 1890	12.00 " "	Jan., 1894	9.00 " "	Apr., 1897	9.00 " "
Jan., 1891	12.00 " "	Apr., 1894	9.00 " "	July, 1897	9.00 " "
Apr., 1891	12.00 " "	July, 1894	9.00 " "	Oct., 1897	9.00 " "
July, 1891	12.00 " "	Oct., 1894	9.00 " "	Jan., 1898	9.00 " "
Oct., 1891	12.00 " "	Jan., 1895	9.00 " "	Apr., 1898	10.00 " "
Jan., 1892	10.00 " "	Apr., 1895	9.00 " "	July, 1898	10.00 " "
Apr., 1892	10.00 " "	July, 1895	9.00 " "	Oct., 1898	10.00 " "
July, 1892	10.00 " "	Oct., 1895	9.00 " "	Jan., 1899	10.00 " "
Oct., 1892	10.00 " "	Jan., 1896	9.00 " "	Apr., 1899	11.00 " "
Jan., 1893	10.00 " "	Apr., 1896	9.00 " "	July, 1899	11.00 " "

DOORS: Pine, unmolded, 2 feet 4 inches by 6 feet 8 inches, 1 $\frac{1}{2}$ inches thick.

Jan., 1890	\$1.50 each.	Apr., 1893	\$1.25 each.	July, 1896	\$0.85 each.
Apr., 1890	1.50 " "	July, 1893	1.15 " "	Oct., 1896	.80 " "
July, 1890	1.25 " "	Oct., 1893	1.15 " "	Jan., 1897	.80 " "
Oct., 1890	1.25 " "	Jan., 1894	1.10 " "	Apr., 1897	.80 " "
Jan., 1891	1.25 " "	Apr., 1894	1.10 " "	July, 1897	.80 " "
Apr., 1891	1.25 " "	July, 1894	1.00 " "	Oct., 1897	.85 " "
July, 1891	1.25 " "	Oct., 1894	1.00 " "	Jan., 1898	.85 " "
Oct., 1891	1.25 " "	Jan., 1895	.95 " "	Apr., 1898	.90 " "
Jan., 1892	1.25 " "	Apr., 1895	.90 " "	July, 1898	.95 " "
Apr., 1892	1.25 " "	July, 1895	.90 " "	Oct., 1898	1.00 " "
July, 1892	1.25 " "	Oct., 1895	.90 " "	Jan., 1899	1.10 " "
Oct., 1892	1.25 " "	Jan., 1896	.85 " "	Apr., 1899	1.15 " "
Jan., 1893	1.35 " "	Apr., 1896	.85 " "	July, 1899	1.25 " "

HEMLOCK: Boards, first quality, 1-inch, not planed.

Jan., 1890	\$10.00 per M feet.	Apr., 1893	\$10.00 per M feet.	July, 1896	\$8.00 per M feet.
Apr., 1890	10.00 " "	July, 1893	10.00 " "	Oct., 1896	8.00 " "
July, 1890	11.00 " "	Oct., 1893	10.00 " "	Jan., 1897	8.25 " "
Oct., 1890	11.00 " "	Jan., 1894	9.50 " "	Apr., 1897	8.25 " "
Jan., 1891	10.50 " "	Apr., 1894	9.50 " "	July, 1897	8.25 " "
Apr., 1891	10.50 " "	July, 1894	9.00 " "	Oct., 1897	8.50 " "
July, 1891	10.00 " "	Oct., 1894	9.00 " "	Jan., 1898	8.50 " "
Oct., 1891	10.00 " "	Jan., 1895	9.00 " "	Apr., 1898	9.00 " "
Jan., 1892	10.00 " "	Apr., 1895	9.00 " "	July, 1898	9.00 " "
Apr., 1892	10.00 " "	July, 1895	8.75 " "	Oct., 1898	9.50 " "
July, 1892	10.50 " "	Oct., 1895	8.50 " "	Jan., 1899	10.50 " "
Oct., 1892	10.50 " "	Jan., 1896	8.00 " "	Apr., 1899	11.50 " "
Jan., 1893	10.50 " "	Apr., 1896	8.00 " "	July, 1899	12.50 " "

LIME: Rockland.

Jan., 1890	\$0.90 per barrel.	Apr., 1893	\$0.90 per barrel.	July, 1896	\$0.62 per barrel.
Apr., 1890	1.00 " "	July, 1893	.90 " "	Oct., 1896	.67 " "
July, 1890	.90 " "	Oct., 1893	.95 " "	Jan., 1897	.65 " "
Oct., 1890	.90 " "	Jan., 1894	.88 " "	Apr., 1897	.73 " "
Jan., 1891	.90 " "	Apr., 1894	.83 " "	July, 1897	.75 " "
Apr., 1891	.85 " "	July, 1894	.88 " "	Oct., 1897	.75 " "
July, 1891	.90 " "	Oct., 1894	.85 " "	Jan., 1898	.78 " "
Oct., 1891	.85 " "	Jan., 1895	.80 " "	Apr., 1898	.81 " "
Jan., 1892	.87 " "	Apr., 1895	.80 " "	July, 1898	.65 " "
Apr., 1892	.86 " "	July, 1895	.75 " "	Oct., 1898	.65 " "
July, 1892	.95 " "	Oct., 1895	.70 " "	Jan., 1899	.75 " "
Oct., 1892	.85 " "	Jan., 1896	.78 " "	Apr., 1899	.80 " "
Jan., 1893	.98 " "	Apr., 1896	.70 " "	July, 1899	.75 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

LUMBER AND BUILDING MATERIALS—Concluded.

TAR: Wilmington.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$1.95 per barrel.	Apr., 1893	\$2.00 per barrel.	July, 1896	\$1.95 per barrel.
Apr., 1890	1.90 " "	July, 1893	1.95 " "	Oct., 1896	1.85 " "
July, 1890	2.00 " "	Oct., 1893	2.05 " "	Jan., 1897	1.95 " "
Oct., 1890	2.25 " "	Jan., 1894	1.90 " "	Apr., 1897	1.80 " "
Jan., 1891	2.05 " "	Apr., 1894	1.80 " "	July, 1897	2.00 " "
Apr., 1891	2.05 " "	July, 1894	1.80 " "	Oct., 1897	2.25 " "
July, 1891	2.00 " "	Oct., 1894	2.00 " "	Jan., 1898	1.85 " "
Oct., 1891	2.20 " "	Jan., 1895	1.85 " "	Apr., 1898	1.75 " "
Jan., 1892	2.20 " "	Apr., 1895	1.85 " "	July, 1898	2.15 " "
Apr., 1892	2.20 " "	July, 1895	2.15 " "	Oct., 1898	2.25 " "
July, 1892	2.25 " "	Oct., 1895	2.05 " "	Jan., 1899	2.15 " "
Oct., 1892	2.10 " "	Jan., 1896	1.85 " "	Apr., 1899	2.05 " "
Jan., 1893	2.05 " "	Apr., 1896	1.75 " "	July, 1899	2.50 " "

TURPENTINE.

Jan., 1890	\$0.44 per gallon.	Apr., 1893	\$0.33 per gallon.	July, 1896	\$0.25 per gallon.
Apr., 1890	.43 " "	July, 1893	.29½ " "	Oct., 1896	.28 " "
July, 1890	.40 " "	Oct., 1893	.27½ " "	Jan., 1897	.26½ " "
Oct., 1890	.39½ " "	Jan., 1894	.29 " "	Apr., 1897	.29 " "
Jan., 1891	.39 " "	Apr., 1894	.29½ " "	July, 1897	.26½ " "
Apr., 1891	.40 " "	July, 1894	.30½ " "	Oct., 1897	.32½ " "
July, 1891	.37½ " "	Oct., 1894	.28½ " "	Jan., 1898	.33½ " "
Oct., 1891	.37 " "	Jan., 1895	.27½ " "	Apr., 1898	.32 " "
Jan., 1892	.34 " "	Apr., 1895	.36 " "	July, 1898	.26 " "
Apr., 1892	.37½ " "	July, 1895	.28 " "	Oct., 1898	.30½ " "
July, 1892	.29½ " "	Oct., 1895	.28 " "	Jan., 1899	.45½ " "
Oct., 1892	.28½ " "	Jan., 1896	.30 " "	Apr., 1899	.42½ " "
Jan., 1893	.31 " "	Apr., 1896	.28½ " "	July, 1899	.38½ " "

DRUGS AND CHEMICALS.

ALCOHOL: 94 per cent.

Jan., 1890	\$1.98 per gallon.	Apr., 1893	\$2.28 per gallon.	July, 1896	\$2.31 per gallon.
Apr., 1890	1.98 " "	July, 1893	2.18 " "	Oct., 1896	2.28 " "
July, 1890	2.12 " "	Oct., 1893	2.18 " "	Jan., 1897	2.26 " "
Oct., 1890	2.20 " "	Jan., 1894	2.24 " "	Apr., 1897	2.26 " "
Jan., 1891	2.22 " "	Apr., 1894	2.24 " "	July, 1897	2.29 " "
Apr., 1891	2.26 " "	July, 1894	2.21 " "	Oct., 1897	2.31 " "
July, 1891	2.26 " "	Oct., 1894	2.52 " "	Jan., 1898	2.26 " "
Oct., 1891	2.30 " "	Jan., 1895	2.33 " "	Apr., 1898	2.25½ " "
Jan., 1892	2.30 " "	Apr., 1895	2.37 " "	July, 1898	2.37 " "
Apr., 1892	2.20 " "	July, 1895	2.35 " "	Oct., 1898	2.39 " "
July, 1892	2.26 " "	Oct., 1895	2.30 " "	Jan., 1899	2.44 " "
Oct., 1892	2.24 " "	Jan., 1896	2.32 " "	Apr., 1899	2.42 " "
Jan., 1893	2.54 " "	Apr., 1896	2.32 " "	July, 1899	2.44 " "

BRIMSTONE: Crude.

Jan., 1890	\$19.50 per ton.	Apr., 1893	\$19.50 per ton.	July, 1896	\$18.50 per ton.
Apr., 1890	19.50 " "	July, 1893	19.25 " "	Oct., 1896	20.75 " "
July, 1890	22.00 " "	Oct., 1893	17.25 " "	Jan., 1897	21.00 " "
Oct., 1890	21.50 " "	Jan., 1894	17.75 " "	Apr., 1897	19.75 " "
Jan., 1891	26.00 " "	Apr., 1894	17.25 " "	July, 1897	19.50 " "
Apr., 1891	35.00 " "	July, 1894	17.25 " "	Oct., 1897	20.75 " "
July, 1891	25.00 " "	Oct., 1894	15.75 " "	Jan., 1898	21.00 " "
Oct., 1891	30.00 " "	Jan., 1895	16.25 " "	Apr., 1898	22.00 " "
Jan., 1892	30.25 " "	Apr., 1895	15.75 " "	July, 1898	23.00 " "
Apr., 1892	22.25 " "	July, 1895	15.75 " "	Oct., 1898	21.00 " "
July, 1892	24.00 " "	Oct., 1895	15.50 " "	Jan., 1899	21.25 " "
Oct., 1892	23.50 " "	Jan., 1896	15.25 " "	Apr., 1899	21.75 " "
Jan., 1893	20.75 " "	Apr., 1896	15.75 " "	July, 1899	20.75 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

DRUGS AND CHEMICALS—Continued.

GLYCERIN: American, refined.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.18 per pound.	Apr., 1893	\$0.13½ per pound.	July, 1896	\$0.16½ per pound.
Apr., 1890	.18 " "	July, 1893	.13½ " "	Oct., 1896	.16½ " "
July, 1890	.18 " "	Oct., 1893	.13½ " "	Jan., 1897	.16½ " "
Oct., 1890	.17 " "	Jan., 1894	.13 " "	Apr., 1897	.12 " "
Jan., 1891	.16 " "	Apr., 1894	.12 " "	July, 1897	.12 " "
Apr., 1891	.15½ " "	July, 1894	.11½ " "	Oct., 1897	.12 " "
July, 1891	.15½ " "	Oct., 1894	.11½ " "	Jan., 1898	.11½ " "
Oct., 1891	.15 " "	Jan., 1895	.11½ " "	Apr., 1898	.11 " "
Jan., 1892	.15 " "	Apr., 1895	.11 " "	July, 1898	.13 " "
Apr., 1892	.14 " "	July, 1895	.11 " "	Oct., 1898	.12½ " "
July, 1892	.14 " "	Oct., 1895	.11 " "	Jan., 1899	.12 " "
Oct., 1892	.13½ " "	Jan., 1896	.16½ " "	Apr., 1899	.12 " "
Jan., 1893	.13½ " "	Apr., 1896	.16½ " "	July, 1899	.12½ " "

LINSEED OIL: Domestic raw, in barrels.

Jan., 1890	\$0.60 per gallon.	Apr., 1893	\$0.50 per gallon.	July, 1896	\$0.37 per gallon.
Apr., 1890	.62 " "	July, 1893	.50 " "	Oct., 1896	.35 " "
July, 1890	.62 " "	Oct., 1893	.40 " "	Jan., 1897	.31 " "
Oct., 1890	.62 " "	Jan., 1894	.47 " "	Apr., 1897	.32 " "
Jan., 1891	.58 " "	Apr., 1894	.52 " "	July, 1897	.29 " "
Apr., 1891	.57 " "	July, 1894	.54 " "	Oct., 1897	.34 " "
July, 1891	.47 " "	Oct., 1894	.54 " "	Jan., 1898	.42 " "
Oct., 1891	.40 " "	Jan., 1895	.56 " "	Apr., 1898	.39 " "
Jan., 1892	.37 " "	Apr., 1895	.56 " "	July, 1898	.41 " "
Apr., 1892	.39 " "	July, 1895	.58 " "	Oct., 1898	.33 " "
July, 1892	.42 " "	Oct., 1895	.44 " "	Jan., 1899	.41 " "
Oct., 1892	.44 " "	Jan., 1896	.42 " "	Apr., 1899	.47 " "
Jan., 1893	.48 " "	Apr., 1896	.40 " "	July, 1899	.39 " "

OPIUM.

Jan., 1890	\$3.45 per pound.	Apr., 1893	\$3.10 per pound.	July, 1896	\$2.00 per pound.
Apr., 1890	3.55 " "	July, 1893	2.60 " "	Oct., 1896	2.20 " "
July, 1890	3.75 " "	Oct., 1893	2.70 " "	Jan., 1897	2.20 " "
Oct., 1890	3.80 " "	Jan., 1894	2.25 " "	Apr., 1897	2.40 " "
Jan., 1891	2.35 " "	Apr., 1894	2.62½ " "	July, 1897	2.35 " "
Apr., 1891	2.10 " "	July, 1894	2.15 " "	Oct., 1897	2.62½ " "
July, 1891	2.00 " "	Oct., 1894	1.90 " "	Jan., 1898	2.72½ " "
Oct., 1891	2.00 " "	Jan., 1895	2.35 " "	Apr., 1898	3.05 " "
Jan., 1892	1.90 " "	Apr., 1895	2.10 " "	July, 1898	3.55 " "
Apr., 1892	1.75 " "	July, 1895	1.67½ " "	Oct., 1898	3.62½ " "
July, 1892	1.65 " "	Oct., 1895	1.70 " "	Jan., 1899	3.42½ " "
Oct., 1892	1.62½ " "	Jan., 1896	2.05 " "	Apr., 1899	3.00 " "
Jan., 1893	1.90 " "	Apr., 1896	2.00 " "	July, 1899	3.12½ " "

QUININE: American, bulk.

Jan., 1890	\$0.35 per ounce.	Apr., 1893	\$0.22 per ounce.	July, 1896	\$0.26 per ounce.
Apr., 1890	.31 " "	July, 1893	.22 " "	Oct., 1896	.21½ " "
July, 1890	.31 " "	Oct., 1893	.22 " "	Jan., 1897	.17½ " "
Oct., 1890	.32 " "	Jan., 1894	.25 " "	Apr., 1897	.15 " "
Jan., 1891	.30 " "	Apr., 1894	.27½ " "	July, 1897	.15 " "
Apr., 1891	.25 " "	July, 1894	.25 " "	Oct., 1897	.23 " "
July, 1891	.25 " "	Oct., 1894	.25 " "	Jan., 1898	.25 " "
Oct., 1891	.24 " "	Jan., 1895	.25½ " "	Apr., 1898	.21 " "
Jan., 1892	.24 " "	Apr., 1895	.25 " "	July, 1898	.20 " "
Apr., 1892	.24 " "	July, 1895	.25 " "	Oct., 1898	.19½ " "
July, 1892	.22 " "	Oct., 1895	.25 " "	Jan., 1899	.21 " "
Oct., 1892	.20 " "	Jan., 1896	.27 " "	Apr., 1899	.38 " "
Jan., 1893	.20 " "	Apr., 1896	.26½ " "	July, 1899	.34 " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY, 1899—Continued.

HOUSE FURNISHING GOODS—Concluded.

TUBS: Wooden.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$1.90 per nest of 8.	Apr., 1893	\$1.50 per nest of 8.	July, 1896	\$1.30 per nest of 8.
Apr., 1890	1.90 " " "	July, 1893	1.40 " " "	Oct., 1896	1.30 " " "
July, 1890	1.90 " " "	Oct., 1893	1.40 " " "	Jan., 1897	1.27 " " "
Oct., 1890	1.90 " " "	Jan., 1894	1.35 " " "	Apr., 1897	1.35 " " "
Jan., 1891	1.90 " " "	Apr., 1894	1.35 " " "	July, 1897	1.35 " " "
Apr., 1891	1.90 " " "	July, 1894	1.30 " " "	Oct., 1897	1.30 " " "
July, 1891	1.90 " " "	Oct., 1894	1.20 " " "	Jan., 1898	1.35 " " "
Oct., 1891	1.90 " " "	Jan., 1895	1.20 " " "	Apr., 1898	1.40 " " "
Jan., 1892	1.85 " " "	Apr., 1895	1.15 " " "	July, 1898	1.40 " " "
Apr., 1892	1.80 " " "	July, 1895	1.10 " " "	Oct., 1898	1.40 " " "
July, 1892	1.75 " " "	Oct., 1895	1.20 " " "	Jan., 1899	1.45 " " "
Oct., 1892	1.70 " " "	Jan., 1896	1.40 " " "	Apr., 1899	1.65 " " "
Jan., 1893	1.60 " " "	Apr., 1896	1.35 " " "	July, 1899	1.75 " " "

MISCELLANEOUS.

POWDER: Rifle.

Jan., 1890	\$5.00 per 25-lb. keg.	Apr., 1893	\$4.00 per 25-lb. keg.	July, 1896	\$4.00 per 25-lb. keg.
Apr., 1890	5.00 " " "	July, 1893	3.50 " " "	Oct., 1896	4.00 " " "
July, 1890	5.50 " " "	Oct., 1893	3.25 " " "	Jan., 1897	4.00 " " "
Oct., 1890	5.50 " " "	Jan., 1894	3.25 " " "	Apr., 1897	4.00 " " "
Jan., 1891	5.50 " " "	Apr., 1894	3.25 " " "	July, 1897	4.00 " " "
Apr., 1891	5.50 " " "	July, 1894	3.25 " " "	Oct., 1897	4.00 " " "
July, 1891	5.50 " " "	Oct., 1894	3.25 " " "	Jan., 1898	4.00 " " "
Oct., 1891	5.50 " " "	Jan., 1895	3.25 " " "	Apr., 1898	4.00 " " "
Jan., 1892	5.50 " " "	Apr., 1895	3.25 " " "	July, 1898	4.00 " " "
Apr., 1892	5.50 " " "	July, 1895	3.25 " " "	Oct., 1898	4.00 " " "
July, 1892	5.00 " " "	Oct., 1895	3.25 " " "	Jan., 1899	4.00 " " "
Oct., 1892	4.25 " " "	Jan., 1896	3.25 " " "	Apr., 1899	4.00 " " "
Jan., 1893	4.00 " " "	Apr., 1896	3.25 " " "	July, 1899	4.00 " " "

RUBBER: Para, new fine.

Jan., 1890	\$0.73 per lb.	Apr., 1893	\$0.77 @ 0.79 per lb.	July, 1896	\$0.80 @ 0.85 per lb.
Apr., 1890	.84 " "	July, 1893	.66 @ .68 " "	Oct., 1896	.81 @ .84 " "
July, 1890	.90 " "	Oct., 1893	.71 @ .72 " "	Jan., 1897	.79 " "
Oct., 1890	.92 " "	Jan., 1894	.69 @ .70 " "	Apr., 1897	.81 @ .82 " "
Jan., 1891	.78 @ .80 " "	Apr., 1894	.66 @ .67 " "	July, 1897	.83 " "
Apr., 1891	.90 @ .91 " "	July, 1894	.66 @ .67 1/2 " "	Oct., 1897	.86 " "
July, 1891	.82 @ .83 " "	Oct., 1894	.68 @ .71 " "	Jan., 1898	.82 @ .83 " "
Oct., 1891	.63 " "	Jan., 1895	.73 @ .75 " "	Apr., 1898	.94 " "
Jan., 1892	.63 @ .65 " "	Apr., 1895	.72 @ .73 " "	July, 1898	.95 1/2 " "
Apr., 1892	.72 " "	July, 1895	.72 1/2 @ .74 " "	Oct., 1898	.92 @ .93 " "
July, 1892	.68 @ .69 " "	Oct., 1895	.75 @ .77 " "	Jan., 1899	.94 @ .95 " "
Oct., 1892	.68 @ .69 " "	Jan., 1896	.77 " "	Apr., 1899	1.02 " "
Jan., 1893	.68 @ .70 " "	Apr., 1896	.74 " "	July, 1899	.99 " "

SOAP: Castile, mottled, pure.

Jan., 1890	\$0.05 1/2 per pound.	Apr., 1893	\$0.06 1/2 per pound.	July, 1896	\$0.05 per pound.
Apr., 1890	.05 1/2 " "	July, 1893	.06 1/2 " " "	Oct., 1896	.05 " " "
July, 1890	.06 " " "	Oct., 1893	.06 1/2 " " "	Jan., 1897	.05 1/2 " " "
Oct., 1890	.06 " " "	Jan., 1894	.06 1/2 " " "	Apr., 1897	.06 1/2 " " "
Jan., 1891	.06 " " "	Apr., 1894	.06 " " "	July, 1897	.06 1/2 " " "
Apr., 1891	.06 " " "	July, 1894	.06 " " "	Oct., 1897	.06 1/2 " " "
July, 1891	.06 " " "	Oct., 1894	.05 1/2 " " "	Jan., 1898	.06 1/2 " " "
Oct., 1891	.06 1/2 " " "	Jan., 1895	.05 1/2 " " "	Apr., 1898	.06 1/2 " " "
Jan., 1892	.06 1/2 " " "	Apr., 1895	.05 1/2 " " "	July, 1898	.06 1/2 " " "
Apr., 1892	.06 1/2 " " "	July, 1895	.05 " " "	Oct., 1898	.06 1/2 " " "
July, 1892	.06 1/2 " " "	Oct., 1895	.05 " " "	Jan., 1899	.05 1/2 " " "
Oct., 1892	.06 1/2 " " "	Jan., 1896	.06 " " "	Apr., 1899	.06 1/2 " " "
Jan., 1893	.06 1/2 " " "	Apr., 1896	.05 " " "	July, 1899	.06 1/2 " " "

WHOLESALE PRICES OF COMMODITIES, JANUARY, 1890, TO JULY,
1899—Concluded.

MISCELLANEOUS—Concluded.

STARCH: Pure.

Date.	Price.	Date.	Price.	Date.	Price.
Jan., 1890	\$0.04950 per pound.	Apr., 1893	\$0.05175 per pound.	July, 1896	\$0.04950 per pound.
Apr., 1890	.04950 " "	July, 1893	.05175 " "	Oct., 1896	.04950 " "
July, 1890	.04950 " "	Oct., 1893	.05175 " "	Jan., 1897	.04950 " "
Oct., 1890	.05400 " "	Jan., 1894	.05175 " "	Apr., 1897	.04950 " "
Jan., 1891	.05400 " "	Apr., 1894	.05175 " "	July, 1897	.04950 " "
Apr., 1891	.05400 " "	July, 1894	.05400 " "	Oct., 1897	.04950 " "
July, 1891	.05400 " "	Oct., 1894	.05175 " "	Jan., 1898	.04950 " "
Oct., 1891	.05400 " "	Jan., 1895	.05175 " "	Apr., 1898	.04950 " "
Jan., 1892	.05175 " "	Apr., 1895	.05175 " "	July, 1898	.04950 " "
Apr., 1892	.05175 " "	July, 1895	.05175 " "	Oct., 1898	.04950 " "
July, 1892	.05175 " "	Oct., 1895	.05175 " "	Jan., 1899	.04950 " "
Oct., 1892	.05175 " "	Jan., 1896	.05175 " "	Apr., 1899	.04950 " "
Jan., 1893	.05175 " "	Apr., 1896	.04950 " "	July, 1899	.04950 " "

STARCH: Silver gloss.

Jan., 1890	\$0.06300 per pound.	Apr., 1893	\$0.06075 per pound.	July, 1896	\$0.05850 per pound.
Apr., 1890	.06300 " "	July, 1893	.06075 " "	Oct., 1896	.05850 " "
July, 1890	.06300 " "	Oct., 1893	.06075 " "	Jan., 1897	.05850 " "
Oct., 1890	.06300 " "	Jan., 1894	.06075 " "	Apr., 1897	.05850 " "
Jan., 1891	.06300 " "	Apr., 1894	.06075 " "	July, 1897	.05850 " "
Apr., 1891	.06300 " "	July, 1894	.06300 " "	Oct., 1897	.05850 " "
July, 1891	.06300 " "	Oct., 1894	.06075 " "	Jan., 1898	.05850 " "
Oct., 1891	.06300 " "	Jan., 1895	.06075 " "	Apr., 1898	.05850 " "
Jan., 1892	.06075 " "	Apr., 1895	.06075 " "	July, 1898	.05850 " "
Apr., 1892	.06075 " "	July, 1895	.06075 " "	Oct., 1898	.05850 " "
July, 1892	.06075 " "	Oct., 1895	.06075 " "	Jan., 1899	.05850 " "
Oct., 1892	.06075 " "	Jan., 1896	.06075 " "	Apr., 1899	.05850 " "
Jan., 1893	.06075 " "	Apr., 1896	.05850 " "	July, 1899	.05850 " "

FOREIGN LABOR LAWS. (a)

BY W. F. WILLOUGHBY.

GERMANY. (b)

To understand the existing system of labor legislation in Germany it is essential that its historical development should be traced at least in outline. Germany, like Austria, has refused to break with the past, and there can, therefore, be found in her present legislation many regulations the significance of which can be understood only by reference to prior legislation.

The history of the development of German labor legislation must be sought for in that of Prussia. Not only did Prussia, almost alone among German States prior to their federation in the Empire, resolutely attempt to free industry and labor from the restrictions characteristic of former centuries, and seek to bring her industrial legislation in harmony with changed conditions, but she afterwards imposed this legislation, with few modifications, upon the whole Empire.

a In Bulletin Nos. 25 and 26 the labor laws of Great Britain, France, Belgium, and Switzerland have been considered. In the present Bulletin those of Germany are shown. The labor legislation of Austria and other countries will be given in subsequent Bulletins.

b In the summary here given of the laws in Germany use has in all cases been made of copies of the laws themselves. These can easily be consulted in the three numbers of the Guttentag'sche Sammlung deutscher Reichsgesetze:

Reichs-Gewerbeordnung, nebst Ausführungsbestimmungen. Text-Ausgabe mit Anmerkungen und Sachregister, von T. Ph. Berger; fortgeführt von Dr. jur. L. Wilhelm, 15th edition, Berlin, 1899.

Das Vereins- und Versammlungsrecht in Deutschland. Text-Ausgabe mit Anmerkungen und Sachregister, von Dr. Ernst Ball, Berlin, 1894.

Reichsgesetz betreffend die Gewerbegerichte, von L. Mugdan, 4th edition, Berlin.

In the analysis, and especially in the statement of prior existing legislation, use has, however, been made of other works, among which the following should be mentioned:

La législation du travail, par Ch. Morisseaux, Bruxelles, 1895.

Conrad's Handwörterbuch der Staatswissenschaften, and the two supplemental volumes published in 1895 and 1897.

Royal Commission on Labor, Great Britain. Foreign Reports: Germany, 1893.

Report of the Chief Inspector of Factories and Workshops for the year 1895. Great Britain, 1896 (contains a report by Miss A. M. Anderson on Protection of Labor in Industry, Germany).

Annuaire de la législation du travail. 1^{re} année, 1897; 2^e année, 1898. Office du Travail, Belgique, 1898 and 1899.

Le développement de la législation protectrice des ouvriers en Allemagne depuis 1890, par A. Weber. A report made to the Congrès International de Législation du Travail, à Bruxelles, 1897.

In tracing this development it is desirable to distinguish and follow separately two distinct movements, though legislation in respect to both is frequently found in the same acts. The first relates chiefly to the effort to liberate industry from old restrictions, and to determine the sphere and functions of the old guilds so as to bring them into harmony with modern conditions. The second relates to the gradual growth of a body of legislation concerning factory work, necessitated by the development of manufacturing upon a large scale, the regulation anew of the labor contract, the arbitration of labor disputes, the right of workmen to form organizations, etc. It is exceedingly important to bear in mind this twofold development, as it has resulted in the formation of two distinct schemes of labor regulation; the one relating solely to the handicraft trades, and fixing the conditions that workmen must fulfill in order to be apprentices, journeymen, and masters, and the character and powers of their organizations, the guilds, and the other relating to employees working in factories and mills, though under this head are considered some laws, such as that concerning the right of association, that are of general application.

The starting point for the first movement is found in the edict of October 9, 1807, which abolished serfdom, and made free the right to possess land. This was followed in the next year by the circular of December 26, 1808, which proclaimed the right of citizens freely to engage in such occupations as they desired. Exclusive privileges to conduct certain trades and industrial monopolies were gradually abolished by subsequent orders. November 2, 1810, a law was passed which made the exercise of a trade conditional upon securing a "patent" from the Government, but this could not be refused to anyone producing a certificate of good conduct. For certain trades, the pursuit of which was attended by considerable danger, or for which a special knowledge or skill was required, a special authorization was necessary. Certain differences between cities and rural districts in respect to the prosecution of trades and other restrictions upon the freedom of labor, such as fees and special taxes, were at the same time removed.

This process of freeing industry was continued by the law of September 7, 1811, in respect to trade guilds (*Innungen*). This law maintained the old guilds as institutions necessary to unite persons engaged in the same trade, but provided that membership in them should not be compulsory. Persons not members were permitted to employ labor and have apprentices. It is important, however, to note that the Government reserved to itself the right to unite in guilds persons exercising the same trade, if it was believed that the public interests would be served thereby.

A law, dated May 30, 1820, removed the obligation of obtaining a "patent," and provided that a simple declaration to the local authorities would suffice.

This movement for the freeing of industry was consummated in 1845 by the enactment of the very important general labor code (*Gewerbeordnung*) of January 17 of that year. The character and significance of this act is described by M. Morisseaux as follows:

This law was the first act the provisions of which applied uniformly to all the provinces of Prussia. It was the result of ten years' study and investigation by an official commission and various public bodies. It confirmed and extended industrial liberty and removed in all the provinces of the Kingdom a large number of restrictions which were still contrary to this principle. It subordinated the exercise of a trade only to the possession of the necessary aptitude for its prosecution, to a fixed domicile, and to a declaration to the local authorities. In exceptional cases only, where special intelligence was required or the industry was dangerous to the public, were special authorizations required. The law enumerates these dangerous or unhealthy trades, and the special conditions regulating their prosecution. Finally all the old industrial privileges, including those consequent upon the ownership of land, the right of granting monopolies which certain authorities still retained, the right to sell in the city and environs (*Bannrecht*) to the exclusion of strangers, the prohibition of the right to exercise several trades simultaneously, the monopoly of exercising certain trades until then reserved to the cities—all these privileges, all these rights, the remnants of old legislation, and already in part suppressed by the laws of 1810 and 1811—were completely swept away.

The law, however, made the effort to bolster up and maintain the old guilds. The reason for this action was chiefly the desire to preserve the apprenticeship system. It was thought that the education of apprentices was a matter that should not be left to the hazards of a purely private contract. At the same time the Government was not ready to introduce a system for the official examination and regulation of apprentices. The law, therefore, defined anew the duties and rights of guilds and assigned to them the care of the interests of their trades, the regulation of apprenticeships, and the establishment and maintenance of relief funds for their members. Membership in the guilds, however, continued to be upon the voluntary basis.

The country at this time was apparently not prepared for so large a measure of freedom. An industrial depression occurring about this time was attributed in part to this legislation. Changes were demanded, and in consequence some modifications in the sense of limiting the liberty that had been granted were made by the two ordinances of February 9, 1849. The exercise of a handicraft trade was made dependent upon affiliation with the guild for the trade and certain other conditions. New importance was thus given to the guilds.

Commencing with 1860, the current again set strongly toward liberalism. During the years 1860 to 1865 a large number of the German States enacted industrial laws having for their purpose the freeing of industry. In Prussia laws of this character were enacted June 22, 1861, July 1, 1861, and September 13, 1865, though the provisions of the general law of 1845 were not materially changed.

In 1867 the Confederation of the North German States was formed. The Federal constitution, adopted July 26, gave to the central government the power to enact general industrial regulations. It was by no means an easy task to frame a law to supplant the diverse laws of the different States. Success, however, was finally achieved, and a general industrial code (*Gewerbeordnung*) was enacted June 21, 1869. After the founding of the German Empire this law was extended by successive acts to those States which were not embraced in the Confederation of the North. The final step was taken in 1889, when its extension to Alsace-Lorraine was practically completed.

In general character this law was similar to the industrial code of 1845. Its provisions, however, were even more liberal, and an industrial system approaching in freedom that of Great Britain was established. As in 1845, however, almost immediately upon the enactment of the code, a reaction set in, and a movement for the modification of its provisions in the sense of making the right to be an employer, a journeyman, or an apprentice dependent upon certain conditions was started, which, continuing to the present day, has radically modified the system of the legal regulation of labor and industry in the country.

The reason for this dissatisfaction with the legislation of 1869 is found in the rapid growth of the factory system after the war with France, and the corresponding decline in importance and dignity of the old handicraft trades and trade guilds. This change was looked upon by many as a real misfortune. Coming at this time, it was attributed largely to the code of 1869, which left the formation of, and membership in, guilds entirely voluntary.

The means for restoring the handicrafts to their old importance was sought in the restoration to power of the trade guilds. During the last 30 years there has consequently been a determined, and to a considerable extent successful, agitation for the enactment of laws giving increased powers to the guilds. The most radical demanded the organization of the handicraftsmen in each trade into compulsory guilds, with large powers for the regulation of trade matters.

Though conducted with great energy, this agitation was not productive of important results until 1881. A law was enacted July 18 of that year which introduced a number of the changes demanded. While failing to establish the principle of compulsory guilds, this law gave voluntary guilds a very privileged position. It made them organizations of employers and journeymen carrying on a trade on their own account, with an authority of their own, and power to enact certain regulations, especially as regards apprenticeship, which should have all the force of law even in respect to journeymen not affiliated with the guilds. They were to create and maintain aid funds and arbitration tribunals (*Schiedsgerichte*) for the adjustment of trade dis-

putes and organize technical schools and other institutions for the advancement of the interests of their trades. An important change was the removal of the restriction, contained in the law of 1869, that each guild should embrace only members of the same trade, a restriction that had prevented the formation of guilds in small places. The guilds were made civil bodies, and given the power to hold land, to contract obligations, and sue and be sued in their corporate capacity. Finally, the collection of properly imposed dues was made enforceable by law.

This law was far from being as radical as was demanded, and the agitation for the extension of the guilds continued unabated. December 8, 1884, a law was passed which provided that a journeyman not a member of a guild could not have an apprentice. April 23, 1886, another law was enacted, having for its purpose the encouragement of federations of guilds and outlining for them certain fields of activity. The movement was advanced another step by the law of July 6, 1887, which gave additional privileges to guilds, the most important of which was the power conferred on administrative authorities to compel employers and journeymen not affiliated with guilds of their trades to bear their share of the guild expenses for journeymen's shelters, trade schools, and arbitration tribunals.

Finally, this long series of laws reached its consummation in the very important law of July 26, 1897, in which are consolidated all the legal provisions regarding guilds, journeymen, and apprentices. In bringing together in one act these various provisions the Parliament at the same time introduced a number of important modifications in the prior existing laws. Most, if not all, of these changes have for their purpose the increase in power and importance of the guilds, and the more rigid regulation of the right to work as journeymen, to have apprentices, etc. While a general system of compulsory guilds is not created, it is provided that where a majority of the persons interested are in favor of it a compulsory guild, to include all members of a trade in a certain district, can be created by the authorities.

RIGHT OF ASSOCIATION.

In Germany, as in most European countries, the formation by workingmen of organizations of any kind was for many years looked upon as a danger to the State and was prohibited by law. The labor code of 1869, in completing the freeing of industry from many old restrictions, at the same time removed the restriction on the formation of labor organizations. Under this law workingmen have the right to form unions for the purpose of jointly attempting to raise their wages or improve their condition in other respects.

In granting this privilege the law, however, introduced certain provisions to guard against its abuse. The law provides that anyone,

whether employer or employee, who seeks to induce another person or other persons, by physical force, threats, insults, or injuries to take part in any combination or organization, or to induce another or others to withdraw from such combination or organization, may be punished by imprisonment for not more than 3 months.

As yet no general law has been enacted for the purpose of regulating the right of workingmen to form trade unions or other trade organizations. With the exception of certain isolated provisions of the general industrial code relating to this subject, the nature of which has been given, the right of association is, therefore, a matter which is regulated by the laws of the individual States of the Empire.

As yet labor organizations have not been given the right of becoming legal persons through incorporation or otherwise. They can not hold property, sue or be sued, or perform other similar acts in a corporate capacity.

There are special laws relating to the formation of joint stock, cooperative, and other similar kinds of organizations, but their consideration does not come within the scope of this paper.

TRADE GUILDS.

The whole system of the legal regulation of trade guilds and apprenticeship, as has been said, is now set forth in the law of July 26, 1897. The essential features of this system are fully shown in the following paragraphs.

Persons carrying on trades on their own account can form guilds for the advancement of their common trade interests. The objects of these guilds shall be: (1) The cultivation of esprit de corps and professional pride among the members of a trade; (2) the maintenance of amicable relations between employers and their employees, the securing of work for unemployed journeymen, and their shelter during the period of their nonemployment; (3) the detailed regulation of the conditions of apprenticeship and the care for the technical and moral education of apprentices; (4) the adjustment of disputes between guild members and their apprentices, as contemplated by the law of July 29, 1890, concerning industrial arbitration.

In carrying out these purposes the following lines of action are specifically recommended by the law to the guilds: (1) The creation of institutions for the development of the industrial and moral character of masters, journeymen, and apprentices, and notably the maintenance of technical schools and the promulgation of orders for their administration; (2) the determination of the conditions under which persons may become masters or journeymen and the granting of certificates to that effect; (3) the establishment of funds to aid guild members and their families, journeymen, apprentices, and helpers in cases of sickness, invalidity, death, or other trouble; (4) the organization

of arbitration tribunals to take the place of the ordinary arbitration authorities for the adjustment of disputes between members and their employees; (5) the creation of a general business organization for the purpose of advancing the trades for which the guilds are created.

In general the jurisdiction of a guild is limited to that of the administrative district in which it is located. Exceptions, however, can be authorized by the central authorities.

Each guild must have its individual constitution, setting forth the rules for its government, the rights of members, and its own obligations. This constitution must contain provisions concerning: (1) The name, location, and district of the guild, and the branch of industry for which it was created; (2) the objects of the guild and the permanent institutions, especially those for the benefit of apprentices, that it intends to create; (3) the conditions of admission, resignation, and expulsion of members; (4) the rights and duties of members, and especially the basis upon which dues will be assessed; (5) the appointment of a board of managers and the determination of its powers, the composition and powers of the guild assembly, the manner of voting, the verification of accounts, and generally the provision of a scheme of government for the guild; (6) the establishment and attributes of a journeyman's commission; (7) the enforcement of regulations concerning the employment of journeymen, apprentices, and helpers, and the attendance upon schools by apprentices; (8) the creation and fixing of the mode of procedure of arbitration tribunals between members and their employees; (9) the levying and enforcement of fines; (10) the manner in which the constitution can be amended or the guild dissolved.

The constitution must not contain any provisions which do not relate to the duties of the guilds as determined by the present law, or which contravene any legal provisions. It must be approved by the superior administrative authorities of the district in which the guild is located. This approval can only be refused when the constitution does not conform to legal requirements, or when there is already in existence in the district a guild for the same industry or industries.

When any of the institutions enumerated above, such as aid funds, arbitration tribunals, etc., are organized by a guild, special regulations for their administration must be prepared, which must also be submitted to the authorities for approval. These officers can exercise their discretion in granting or refusing their approval, but must give their reasons when adverse action is taken. An appeal from this decision can be taken to the central government.

Separate accounts must be kept of the receipts and expenditures of each institution, and the funds of each must be kept separate from the general funds of the guild.

Guilds are corporate bodies, and can acquire property, make contracts, and sue and be sued in their corporate capacity. Their creditors have recourse only against the corporate funds of the guilds.

Membership in guilds is limited to the following classes of persons: Those who exercise on their own account in the district the trade for which the guild is created; those who hold the position of foreman or a similar office in a large establishment; those who fulfill the conditions of the above two classes, but have ceased to work without taking up any other trade, and handicraftsmen (*Handwerker*) working for wages in agricultural and industrial pursuits. Other persons, however, may be admitted as honorary members.

The admission of members can only be made subject to such examinations as are prescribed by the constitution, and this examination can only relate to the test of the capacity of the applicants to carry on their trades. Membership can not be refused to anyone fulfilling the legal and statutory requirements, nor can anyone be admitted without fulfilling these conditions.

Members can resign at the end of any official year, provided a prior notice is not required by the constitution. This notice can not be for a longer period than 6 months. Members upon resigning lose all right to a share in the property of the guild, and, unless it is otherwise specifically provided in their constitutions, in the funds of the subsidiary institutions. Upon the death of a member his interest devolves upon his widow or heirs, and the latter can be permitted by the constitution to vote in his stead in the guild assembly.

No member can be required by his guild to do anything or to pay any dues not having reference to the objects of the guild, nor can the funds of the guild be diverted to other purposes. Dues properly levied for the support of the guild or its subsidiary institutions, and fines, can be compulsorily collected in the same way as communal taxes. Disputes concerning dues are decided in the final instance by the superior administrative authorities.

Guild funds must be invested in the manner provided by the civil code in the case of orphan funds, and an accurate account must be kept of all receipts and expenditures. The approval of the supervising authorities is required for all important financial transactions, such as the purchase, encumbrance, or sale of real estate, or the alienation of property having an historical, scientific, or artistic value.

The guilds are given the power to create sick funds, through which the obligations imposed by the sick-insurance law may be fulfilled. The administration of these funds may be intrusted exclusively to the journeymen and helpers, but if the guild members consent to pay half the dues required, the president and half the committee of administration can be named by the guild.

ARBITRATION TRIBUNALS.—The arbitration tribunals organized by the guilds must be composed of a president, designated by the supervising authorities, and not necessarily a member of the guild, and at least two members, chosen half from among the guild members and

half from among the journeymen and other employees of the guild members. The representatives of the guild members are elected by the guild and those representing the workingmen by the workingmen themselves. Their expenses and an indemnity for loss of time are paid to members for each meeting they attend. The amount of this indemnity and the payment to the president are fixed by the special regulations for the arbitration tribunal.

Whenever a request is made for the intervention of this body it must convene within at least 8 days thereafter and must give its decision as soon as possible. If the decision is that something must be done, the defendant shall, if the plaintiff demands it, be ordered to pay a fixed sum in case he fails to obey the order within the time fixed by the tribunal. This penalty can be collected by a civil action. Decisions must be in writing. They acquire an executory force, unless an appeal is taken to the ordinary arbitration authorities within one month. In certain cases, as where an irreparable damage may result and the matter in dispute does not exceed 100 marks (\$23.80) in value, the decision can be declared immediately executory. This can be avoided, however, by the person obligated giving a suitable guarantee.

The decision can be enforced by the police authorities, or in conformity with the procedure for enforcing civil judgments.

GOVERNMENT.—The administration of the affairs of the guild is intrusted to a guild assembly, a board of managers, and commissions for the management of the subsidiary institutions that may be created within the guild. The assembly is either composed of all the guild members or of a certain number of representatives, as may be provided by the constitution of each guild. The board of managers is elected by secret ballot by the assembly or by acclamation, if there is no objection. A record must be kept of all elections.

The law sets forth in considerable detail the respective spheres of action of the assembly and the board of managers. Without entering into these particulars, it is sufficient to say that all the more important acts, such as the voting of the budget, the acquisition of property, etc., must be approved by the assembly, while those of less importance may be settled by the board of managers.

The guilds have the right to supervise by delegates the execution of the laws concerning industrial work in their trades, and to examine the places of work and rooms destined for apprentices. If this power is availed of, the delegates must report their action to the inspectors of factories whenever requested to do so by those officers.

The journeymen employed by the guild members are permitted to participate in the management of the guild affairs within certain limits as prescribed by law and by the constitutions of the guilds. This they do through a journeymen's commission (*Gesellenausschuss*), whose mission is to participate in the regulation of the con-

ditions of apprenticeship, the examination for journeymen's certificates, and the establishment and administration of all institutions in which the journeymen participate, or for the support of which they are required to pay dues. The manner in which this participation is exercised must be regulated in detail by the constitution of each guild upon the following basis: At least one member of the journeymen's commission must take part in the deliberations of the board of managers; all members of the commission must take part in the work of the guild assembly; and, in all bodies for the administration of institutions for the support of which the journeymen contribute, the commission must elect members equal in number to those elected by the guild, not including the president.

ADMINISTRATIVE CONTROL.—All guilds are subject to the oversight of the superior administrative authorities of the districts in which they are located. This oversight consists especially in the duty of the authorities to see that all legal and statutory requirements are fulfilled by the guilds. Compliance with these obligations can be compelled by the imposition of fines. The authorities adjust disputes relative to the admission or exclusion of members and elections. They have the right to have a representative present at examinations. They convoke and direct guild assemblies when the board of directors of a guild refuses or neglects to summon them. The presence of a representative of the authorities is necessary at all deliberations at which the subjects of the modification of the constitution of the guild, or of the regulations of any of its institutions, or the dissolution of the guild are under consideration. The authorities can dissolve a guild whenever it refuses to comply with the legal requirements, does not properly perform its duties, or becomes so reduced in membership as no longer to be able effectively to accomplish its mission. The method to be pursued in bringing about the dissolution of a guild is carefully stated in the law, but is not of sufficient importance to be here reproduced.

COMPULSORY GUILDS.—As has already been pointed out, the German Parliament, while desiring to foster the growth of trade guilds, was unwilling to take the radical step of making the creation of such institutions compulsory upon employers and journeymen. Instead it adopted the compromise measure by which compulsory guilds shall be created only under certain circumstances and when the persons interested seem to be in favor of their establishment.

The law thus provides that when the majority of the interested parties in a certain district consent to the introduction of the principle of compulsory guilds, the superior administrative authorities can create such an institution. When this is done membership is compulsory upon all persons carrying on the trade to which the guild relates on their own account, whether they were in favor of a compulsory

guild or not. Exception is made in favor of those persons who are at the head of large industrial establishments (factories) and those who do not employ journeymen or apprentices. These persons, however, can become members if they desire to do so. The constitution of each guild will determine, subject to the approval of the higher administrative authorities, the extent to which handicraftsmen (*Handwerker*) who are employed in agricultural and industrial pursuits for wages and as a regular thing employ journeymen or apprentices, and persons conducting a household industry, shall be members of the guilds.

The boundaries of a guild district must be so fixed that no member will be so far removed from the guild headquarters that he can not participate in the corporate life of the guild or benefit by its institutions. A compulsory guild, moreover, can only be created where there are a sufficient number of persons qualified to become members to insure that the guild will have sufficient strength to support the burden of its necessary expenditures.

The action of the authorities upon a request for the establishment of a compulsory guild, whether it is favorable or unfavorable, can be appealed from to the central government. An appeal also lies to the same body when the authorities have refused to approve the constitution of a compulsory guild.

The central government, upon the request of the parties interested, advances the money necessary to meet the first expenses of administration.

When a compulsory guild is created, all voluntary guilds in the district in the trades to which the new guild relates must be dissolved. When this is done the property of the voluntary guilds, except in certain special cases, goes to the compulsory guild that replaces them. In those cases where sick funds have been created by virtue of the sick insurance law they are transferred with all their rights and obligations to the new corporation. The superior administrative authorities, however, can abolish these funds if the guilds do not correspond in respect to their boundaries or trades comprehended. All questions regarding the equitable adjustment of rights or duties growing out of this transaction are settled by the superior administrative authorities, subject to an appeal to the central government.

Members of compulsory guilds can not be compelled against their wish to contribute to aid funds which are not comprehended by the law for the compulsory insurance of workingmen against sickness. The guild also is prohibited from carrying on any common industrial undertaking, but it can promote the creation of institutions which have for their purpose the advancement of the trade and economic interests of its members, such as loan funds and organizations for the purchase in common of materials or for the sale of products. It can also aid such works by subsidies, but can not impose special dues for that purpose.

Guilds can not restrict in any way the freedom of their members in fixing the wages of their employees, or the prices for their goods, or the acceptance of clients. All contracts to the contrary are void.

At least two-thirds of the members of the board of managers and of the various guild commissions must be persons having the right to employ apprentices, and must regularly employ apprentices or journeymen. The members of the commission on apprentices must employ both these classes.

In order to meet the expenditures required by the operations of the guilds and journeymen's commissions, dues must be provided for by the constitution upon such a basis that the contribution of each industrial enterprise will be in proportion to its financial capacity. Where an industrial tax is levied by the central government, these dues can be collected as an addition to this tax. The constitution of a compulsory guild can provide that members who do not regularly employ apprentices or journeymen may be wholly or partially exempted from the obligation to pay dues. It can also provide that those persons who voluntarily affiliate themselves with the guild shall only pay certain fixed dues. The levying of entrance fees is prohibited, and the imposition of dues for the maintenance of institutions within the guild must receive the sanction of the supervising authorities.

Compulsory guilds must prepare annual statements of their expenditures and must present annual reports to the supervising authorities.

A compulsory guild will be dissolved at the request of its assembly when one-fourth of the members obligatorily affiliated with the guild have requested the board of managers to take action, a notice of at least 4 weeks of the assembly meeting at which the subject of dissolution was discussed has been given, and three-fourths of the members at this assembly have voted for dissolution. When dissolution takes place, any surplus funds that the guild may possess are distributed by the supervising authorities to the aid funds belonging to the guild, or to the free guild, if such a one is created to take the place of the compulsory guild dissolved, or to the chamber of trades. This action must be approved by the superior administrative authorities, from whose action an appeal can be taken to the central government.

GUILD UNIONS.—Several or all of the guilds subject to the same supervising authorities may form a union for the care of their common interests. When created, certain of the rights and duties belonging to the individual guilds can be transferred to it. The constitution of the guild union must be approved by the superior administrative authorities, from whose decision an appeal can be taken to the central government. The union can be given the power to acquire property, to contract obligations, and sue and be sued in its own name. In general, these unions are subject to the same supervision and control by the Government authorities as the individual guilds.

GUILD FEDERATIONS.—Guilds not subject to the same supervising authorities can form federations. These federations have as their mission the protection of the interests of the trades represented, the assistance of the guilds, guild unions, and chambers of trades in carrying on their work, and the assistance of the Government authorities, by recommending action when the occasion seems to require it. They are authorized to take charge of securing employment for workmen out of work and to establish trade schools.

The constitutions of federations must be approved by the superior administrative authorities when the jurisdiction of the guilds included does not extend beyond the jurisdiction of those authorities; by the central government when it relates to guilds in a number of districts, and by the chancellor of the Empire when it relates to guilds in two or more federated States. Approval can be refused only when the constitution does not conform to legal requirements, or contemplates action by the guild not authorized by law, or if the number of the guilds composing the federation is not sufficient to properly carry out the object of the federation.

The law regulates in great detail the manner in which these federations shall be governed and the extent to which their acts are subject to the approval of the Government. These provisions, however, are so similar in principle to those governing the guilds and guild unions that it is unnecessary to reproduce them. Like these bodies, the federations can hold property, create aid funds, and act in a corporate capacity. They can be dissolved in much the same way as guilds or guild unions.

CHAMBERS OF TRADES.—The central government can create chambers of trades to look after the handicraft trades of the districts for which they are created. These chambers have for their mission: The detailed regulation of the conditions of apprenticeship; the supervision of the execution of these apprenticeship provisions; the assistance of the central and communal authorities in their efforts to advance the interests of the handicraft trades, by furnishing information and making reports concerning trade matters; the giving of advice on action proposed in relation to these trades, and the preparation of annual reports giving information collected by them concerning trade conditions; the creation of commissions to conduct examinations for the granting of journeymen's certificates, and the creation of commissions to adjust disputes arising out of the action of these examining commissions.

These chambers can also create institutions to promote the industrial and moral welfare of employees and apprentices, and especially can establish or subsidize trade schools. The regulations regarding apprenticeship must be submitted to the central government for approval and must afterwards be published. These regulations will

supersede any provisions of the constitution of the guilds or guild unions that may be in conflict with them. These bodies are required to execute the orders made by the chambers when acting within their powers.

The constitutions of the chambers are formulated by the central government, and must set forth in detail the name, powers, purposes, and scheme of government of the chambers. The number of members of each chamber will be determined by its constitution. The members are chosen by the guilds from among their members, and by the trade unions (*Genossenschaften*) and similar organizations, one-half of whose members, at least, are journeymen working within the district. To be eligible for election, candidates must fulfill various requirements, the most important of which are that they shall be 30 years of age, have carried on a trade on their own account for at least 3 years in the district, and have the right to employ apprentices. The chambers can provide by their constitutions that not more than one-fifth of the members shall be experts selected by the other members, and that, furthermore, other experts with a consultative voice only can be summoned to the meetings.

All the more important affairs of the organizations are managed by the full chambers. Matters of detail are left to a board of managers elected from among the members. It is the duty of the supervising authorities to appoint an official commissioner, who must be summoned to every meeting of the chamber, of the board of managers, or of the different commissions. This commissioner has the right to be heard whenever he desires to speak, to examine all the papers of the chamber, to bring forward propositions for consideration, to demand the convening of the chamber, and to suspend its decisions or those of any of its organs whenever he deems that their legal powers have been exceeded.

A journeymen's commission must be established in connection with each chamber. The duties of this body are to give advice and assistance in the preparation of reports concerning the situation of journeymen and apprentices, and to assist in the preparation of regulations for the government of apprentices, and in the adjustment of appeals against the decisions of the examining boards. The members of these commissions are chosen by the journeymen's commissions of the guilds under the direction of the supervising authorities. Their number and apportionment among the different journeymen's commissions are determined by the constitution of each chamber.

The expense of organizing and administering the chambers, as far as it is not met in some other way, must be defrayed by the communes, which will apportion it among the different trades as determined by the superior administrative authorities. The chambers have the right to impose fines, not exceeding 20 marks (\$4.76) in value, as penalties for the infraction of their rules.

The chambers are subject to the supervision of the superior administrative authorities of the districts in which they are located. If a chamber is repeatedly guilty of opposing the supervising authorities, or neglects to fulfill its obligations, or breaks the law for its regulation, either by acts of commission or omission, or pursues objects foreign to those authorized by law, it can be dissolved by the authorities and the election of a new chamber proceeded with. An appeal against this action can be made to the central government.

The administrative authorities and the chambers and their various commissions are required to render each other all possible assistance in carrying out the objects of the present law.

THE LABOR CONTRACT.

The general principle of the German law regarding the labor contract is that the fixing of the relations between employers and employees, except in so far as it is restricted by the imperial law, is a matter for voluntary agreement. The restrictions here referred to are those in relation to the employment of women and children, Sunday and night work and the like, and those concerning the requirement of notice when it is desired to sever the contract, the damages that can be claimed when the contract is broken, etc., which will now be given.

The labor contract between employees and their employers may, unless otherwise agreed upon, be dissolved at any time by either party by giving 14 days' notice. If a longer or shorter notice is agreed upon, it must be the same for both parties. Agreements contrary to this provision are void. To this rule the following exceptions are permitted: Before the expiration of the term of work agreed upon, an employee may be dismissed without notice (1) if at the time of making the contract he deceived his employer by presenting a false labor pass book or certificate, or if at the time he was under a contract to work for another person; (2) if he is guilty of theft, embezzlement, fraud, or other bad conduct; (3) if he leaves his work or otherwise persistently refuses to fulfill the obligations imposed upon him by his contract; (4) if in spite of warnings, he is reckless in the handling of fire or light; (5) if he is guilty of acts of violence or gross insult toward his employer, his representatives, or members of their families; (6) if he intentionally and unlawfully commits an injury to the detriment of his employer or a fellow-worker; (7) if he incites or seeks to incite members of the employer's family or other employees to commit illegal or immoral acts, or has illegal or immoral relations with members of the family of his employer, or the latter's agents; and (8) if he is unable to continue his work, or is afflicted with a repulsive disease. In the first seven cases action must be taken by the employer within a week from the time the employer becomes

aware of the facts justifying this action. In the last case the extent to which the employee is entitled to an indemnity depends upon the particular circumstances of the case.

The employee, on his part, can leave without giving notice (1) when he is unable to perform his duties; (2) when the employer or his representative is guilty of violence or other serious misconduct toward him or his family; (3) when the employer or his agent, or any member of their families, attempts to incite workmen or members of their families to commit illegal or immoral acts, or has illegal or immoral relations with any member of the workman's family; (4) when his wages are not paid as agreed upon or sufficient work is not furnished him when he is working by the piece system; and (5) when his continuance at work exposes his life or health to danger which was not apparent when the contract was made. In the second case action must be taken within a week from the time he became aware of the circumstances justifying his taking action. Finally, the law of 1891 added the provision that the contract could be severed without notice by either party for other important reasons (*aus wichtigen Gründen*), which expression was subsequently defined to relate to such occurrences as deaths, serious illness in the family, or marriage of female employees, if the contract was for 4 or more weeks' work, or a notice of more than 2 weeks was stipulated.

When the labor contract is illegally broken the injured party is entitled to damages, which can be collected through the regular law courts. In addition to this mode of procedure the law of 1891 makes provision for a system by which certain classes of workers can obtain an indemnity without going to the trouble of proving actual damages, it being sufficient if it is shown that the contract was broken without just cause. In this case the amount of the indemnity is limited to the ordinary daily wages of the district for the number of days still to run before the termination of the contract as agreed upon, but in no case for more than 6 days. By the payment of this claim all other claims arising out of the breach of the contract are nullified. This provision by which indemnification can be secured without proving actual damages does not apply to apprentices, assistants in mercantile or apothecary establishments, employees in mines, nor in the case of home workers or factories where at least 20 workmen or women are employed. It does apply, however, to officials, superintendents, and technical experts.

An employer who persuades a workman to break an existing labor contract before its expiration is equally liable for damages as above provided. In like manner an employer is liable if he employs or retains in his employ a workman whom he knows to be still under contract with another employer. An employee must obey the orders of his employer in reference to the work given to him to per-

form, but he can not be required to perform household duties unless he has specially agreed to do so.

The foregoing provisions regarding the labor contract apply only to workingmen, properly speaking. The law regarding the contract for labor between employers and overseers, managers, technical experts, etc., is somewhat different. As the principle of this regulation is the same it is unnecessary to reproduce it in detail.

APPRENTICESHIP.

The law of 1897 contains detailed provisions for the regulation of apprenticeship in the Empire. These provisions are in the main but reenactments of prior existing regulations, the chief changes being in relation to the powers given to the various guild organizations to draft the details of the regulations for the different trades and their enforcement when promulgated. The following is a condensed translation of the provisions of the law of 1897 concerning this subject:

Only persons enjoying all their civil rights shall have the privilege of having and directing apprentices. This right can be temporarily or permanently withdrawn from persons who have repeatedly failed in a material respect to fulfill their obligations toward apprentices, or who have been guilty of acts contrary to morality and of a nature to make them unfit to have charge of apprentices. This right can also be withdrawn from persons afflicted with physical or mental diseases incapacitating them for the proper performance of that duty. The power of thus withdrawing the right to have or direct apprentices is intrusted to the lower administrative authorities, from whose action an appeal can be taken to the higher authorities.

The apprenticeship contract must be in writing, and be concluded within 4 weeks from the commencement of the service. The contract must show the industry to which the apprenticeship relates, the length of service agreed upon, an indication of the reciprocal duties of the parties, and the cases in which the contract can be terminated by one of the parties without the previous consent of the other. It must be signed by the employer or his representative, the apprentice, and the latter's father or guardian. These provisions do not apply to apprentices employed in apprenticeship shops recognized by the Government.

The duties imposed upon the employer are to instruct the apprentice in all matters relating to his trade; to require him to attend an industrial or finishing school; to see that he applies himself zealously and conducts himself properly; to guard him against bad habits, and to protect him from bad treatment on the part of members of his household or companions. The employer must personally direct the work of the apprentice, or place him under the direction of a competent person charged with his special instruction. He can not require of him work beyond his strength or which may be injurious to his health, and must not deprive him of the time necessary for his school instruction or for divine worship. Apprentices not living at the houses of their employers must not be required to perform household duties.

The apprentice must show himself faithful and obedient to his mas-

ter, or those put in charge of his instruction, and must submit to the paternal discipline of the former.

Provision is made for a probationary period, which usually embraces the first 4 weeks of the apprenticeship term, but which may be extended so as to embrace not more than 3 months. The purpose of this provision is to afford an opportunity for the parties to determine whether the contract is satisfactory, and especially whether the apprentice has such an aptitude for the trade as to justify his continuance in it. During this period the contract can be terminated at will by either party. After the expiration of this period, however, the apprentice can not be dismissed unless he refuses to comply with the provisions of the contract, neglects his school work, or is guilty of some overt act, such as theft.

The apprentice, on his part, can terminate the contract if his employer neglects to carry out his obligations toward him, exposes his health to danger, abuses his right to correct him, neglects his education, or becomes incapable of fulfilling the conditions imposed upon him by the terms of the contract.

Upon the completion of the apprenticeship term, the employer must furnish the apprentice with a certificate showing the industry in which the apprentice has been employed, his length of service, degree of skill acquired, etc. When there are guilds or similar organizations for the trade, this certificate can be replaced by a diploma given by these bodies.

If the father or guardian, or the apprentice himself if he is of age, makes a written declaration that the apprentice desires to enter another trade, the contract can be terminated after 4 weeks' notice. In this case the transaction must be entered in the apprentice's pass book, or certificate, and the apprentice can not be employed in the same trade until after the expiration of 9 months, unless he obtains the consent of his former employer.

If an apprentice breaks his contract without due cause, his return can be compelled through the intervention of the police authorities. A demand for such assistance must be made within 1 week from the time of the departure of the apprentice. When the contract has been thus broken by the apprentice without justification, the employer is also entitled to damages. When definite provisions for damages have not been made in the contract, they will be calculated at a rate not exceeding one-half the wages paid in the district to journeymen or helpers in that trade for each of the days remaining until the end of the term agreed upon, but not to exceed 6 months. The obligation of paying this indemnity rests upon the apprentice's father, or the employer who induced the apprentice to break the contract or took him as an apprentice knowing that he was already bound.

If the number of apprentices of any employer is out of proportion to the amount of the latter's business and the instruction of the apprentices is thereby jeopardized, the lower administrative authorities can compel the dismissal of some of the apprentices and forbid the taking of new ones, so as to bring their number within a certain figure.

The Bundesrat can determine for special categories of industries the maximum number of apprentices that can be employed. Until fixed in this way the central government can take similar action, and when this government fails to act the chambers of trades can limit the number of apprentices.

In the handicraft trades, only those persons have the right to direct apprentices who are 24 years of age and have completed the term of apprenticeship prescribed by the chamber of trades in the trade in which it is desired to instruct apprentices, or have exercised that trade without interruption for 5 years either on their own account, or as foremen, or in a similar capacity. The superior administrative authorities can, however, accord this right to persons not fulfilling these conditions. Before doing so they must take the advice of the guild to which the applicant belongs.

Apprenticeship can be served in a large industrial establishment or be replaced by work in an apprenticeship shop or other establishment for industrial education.

If an employer is a member of a guild, he is required to communicate to it copies of all apprenticeship contracts made with him within 15 days after their conclusion. The guilds can require the contracts to be made before them.

In the absence of regulations promulgated by the Bundesrat or central State authorities, the chambers of trades and guilds can make provisions limiting the number of apprentices that can be allowed.

In general, the term of apprenticeship is 3 years, though it may be extended by the addition of not more than another year. The chambers of trades, with the approval of the superior administrative authorities, and after having consulted with the guilds and associations represented, may fix the duration of apprenticeship in each trade.

Upon completing his term of service, the apprentice must be admitted to the examination for a journeyman's certificate. This examination is taken before commissions, of which there is one for each compulsory guild. Other guilds can only have an examining commission when permission has been obtained from the chambers of trades. When provision has not been made for the examination of candidates for each trade, either by guild commissions, apprenticeship shops, trade schools, or State boards of examiners, the necessary commissions will be created by the chambers of trades.

The examining boards must consist of a president, appointed by the chambers of trades, and at least 2 members, half of whom are elected by the guilds and half by the journeymen's commission. The examination must show that the apprentice is able to perform the duties of his trade with sufficient skill, that he knows the character and value of the materials he must make use of, and that he knows how to take care of them. The knowledge of bookkeeping and accounts may also be required. The result of the examination is entered upon the apprentice's certificate.

The title of master can only be borne by journeymen who, in their trade, have acquired the right to have apprentices, and who have passed the master's examination. In general, this examination can only be taken by those who have exercised their trade for at least 3 years as journeymen. The examination is given by a commission composed of a president and 4 other members created by the superior administrative authorities, and must show that the candidate is able to value and execute the ordinary work of his trade, and that he possesses other knowledge, especially that he is able to keep books and accurate accounts, fitting him to carry on the trade on his own account.

HISTORY OF FACTORY LEGISLATION.

From the consideration of laws concerning the organization of industry, attention is now turned to those regarding the regulation of the relations between employers and employees, the fixing of the conditions under which labor can be performed, etc., or what is known in Germany as protective labor legislation (*Arbeiterschutzgesetzgebung*).

The development of this branch of labor legislation was begun much later than that in relation to trade guilds, apprenticeship, etc. The first important step in this direction was made by Prussia, through the act (*Regulativ*) of March 9, 1839, which prohibited the regular employment of children under 9 years of age in mines, factories, stamping mills, blast furnaces, etc.; limited the maximum working day for young persons under 16 years of age to 10 hours, and prohibited their employment at night or on Sundays and holidays. There were also a number of provisions making it obligatory upon employers to take certain precautions for the maintenance of the health and morality of the employees. It thus contained many of the features of the modern factory act.

In 1845 a very decided advance was made in the enactment of a general labor law, bearing date of January 17 of that year, which made further provisions for the benefit of employees. February 9, 1849, other important changes were introduced by an order in council. This order declared that no person should be compelled to work on Sundays or holidays, provided for the establishment of industrial councils, and ordered that the hours of labor for journeymen, helpers, apprentices, and factory employees should be fixed by these councils. It also prohibited the truck system and required wages to be paid in cash.

A further advance was made by the law of May 16, 1853. The minimum age at which children could be employed in factories was raised to 12 years, and the hours of labor of children under 14 years of age were limited to 6 per day. Other provisions of the law regulated the granting of periods of rest, the times of beginning and ending work, school attendance, etc. Finally, power was given to the authorities to appoint factory inspectors to enforce the law, if they deemed it advisable to do so.

In the following 15 years but little or no change was made in the labor legislation of Prussia. After the founding of the North German Confederation, however, a general labor code, embodying, with some changes, the then existing Prussian legislation, was enacted June 21, 1869. Upon the creation of the German Empire this law was gradually extended to the other States of the Empire, and remains today, though with important amendments, the fundamental law regulating labor in Germany.

The first of these amendments introducing other than minor modifications was the law of July 17, 1878. This law made a number of radical changes, the most important of which were those in relation to the employment of women and the protection of the health and lives of factory employees. For the first time the labor of women was subjected to special conditions, through the provision that women could not be employed for the 3 weeks after their confinement, and through the large powers given to the Bundesrat to regulate or prohibit their employment in industries detrimental to their health, or at night in certain trades.

In 1884 a special law was passed to regulate match factories, and in the same year the duties of employers with regard to the provision of safety appliances and the prevention of accidents were further defined by the accident insurance law of that year.

In 1890 was held the famous International Congress in Relation to Labor Legislation, summoned at Berlin by the Emperor for the purpose of considering the whole question of protective labor legislation. The work of this congress led to the enactment of the law of June 1, 1891. This law, which embodies most of the changes recommended by the German representatives at this congress, subjects the employment of women and children to a far more rigid regulation than ever before attempted; lays down in a definite manner the conditions under which Sunday labor is permissible; contains provisions concerning the framing of factory regulations, the making and breaking of the labor contract, and the payment of wages, and generally revises the whole labor code in the direction of subjecting labor to a more rigid legislative control.

The only other important labor act, apart from those relating to compulsory insurance, is that of July 29, 1890, concerning the creation of tribunals for the arbitration of labor disputes, which will be considered in the section relating to that subject.

Before entering upon a statement of the provisions of the industrial code regarding particular subjects regulated, some explanation should be given of the general scope of that part of it now to be considered which constitutes factory legislation proper. It is unfortunate that this can only be done in a general way. The labor code, as a whole, relates to almost all kinds of industrial work with the exception of transportation, agriculture, the fisheries, and mining; and different parts of the code relate to different categories of work. The regulations concerning such subjects as the employment of women and children, the making of shop regulations, etc., are restricted to the definite class of factories (*Fabriken*), but this class of work has never been definitely and authoritatively defined. Whether a particular establishment will be deemed to be a factory must be determined in each case according to the particular circumstances, such as the num-

ber of persons employed, the importance of the work carried on, the use of machinery, etc. In case of dispute the matter is decided by the courts.

The term factory, moreover, is used with a different signification in different parts of the code treating of factory regulations. Thus the provisions concerning the framing and posting of shop rules apply only to factories employing at least twenty persons. On the other hand, the provisions regarding the employment of women and children are made to apply to "employers and employees in all work places (*Werkstätten*) in which mechanical power (steam, wind, water, gas, electricity, etc.) is employed otherwise than temporarily" subject to the power of the Bundesrat to make exceptions in certain cases. It is also expressly provided that an imperial decree can extend these provisions to classes of work which are not carried on in places which can be called factories, as well as to building operations, with the exception that they can not be made to relate to a person employing only members of his or her own family. In point of fact, this power has been exercised but once, when the industry of clothing and underwear making was subjected to these provisions of the code.

An exceedingly broad application has been ordered of those sections relating to the protection of the lives and health of employees. They are made to relate to practically all kinds of industrial work, whether carried on in factories or not, and thus embrace places in which the handicraft trades are prosecuted. They do not refer, however, to such industries as mining, and transportation, for which special regulations are provided by other laws.

PREVENTION OF ACCIDENTS AND PROTECTION OF HEALTH OF EMPLOYEES.

Each factory law enacted has required the taking of more stringent precautions for the prevention of accidents and the protection of the health of employees than its predecessors. Prior to 1891 these requirements were for the most part expressed in general terms, that all needful precautions should be taken. The law of 1891 reproduces these provisions, but also mentions more specifically the measures that must be observed.

Employers must so install and maintain their machinery and appliances that the lives and health of employees are protected as far as possible. They must in particular see that there are provided sufficient light and air; that injurious dust and gases are removed; that dangerous machinery is properly guarded; that precautions are taken against fire, and that regulations to this effect are prepared and enforced.

Employers must also see that all needful precautions are taken, when both men and women are employed, to protect the morality and good

conduct of employees. They must, as far as possible, separate the two sexes; provide separate lavatories and dressing rooms for the two sexes when the nature of the work requires the employees to change their clothes after finishing their work, and provide a sufficient number of water closets, so arranged that they can in no way lead to improper conduct on the part of the employees.

Where persons under 18 years of age are employed, special precautions must be taken for their protection. In the case of industries presenting unusual danger to life or health, or of such a nature as to make them nuisances to their neighbors, special permission for their operation must be obtained from the authorities, and these officers can make such regulations regarding their location and methods of work as they deem proper.

To insure compliance with these provisions, the police authorities have the power to order such changes in the methods of work in individual establishments as they deem proper. An appeal from these orders can be made, first, to the superior administrative authorities, and then to the central government. The police authorities can also require employers to provide, without expense to the employees, suitable places, properly heated during cold weather, and apart from the workrooms, where the latter can eat their meals.

Unless the orders issued refer to some imminent danger to life or health, time must be allowed to employers in which to comply with the orders. In the case of establishments existing at the time of the passage of this law, orders for considerable alterations can not be issued, unless they are necessary for the removal of a serious menace to life, health, or morality, except in the case of rebuilding or the making of extensive additions to the establishment.

Finally, and most important of all, the Bundesrat is given the power to draw up detailed regulations, setting forth the manner in which particular industries must be carried on. In the case of those industries where the Bundesrat does not make use of this power, the central authorities of each State (*Landes-Centralbehörde*) can take action, and in case of nonaction by them the police authorities can prepare such regulations. Before doing so, however, they must give the trade associations (*Berufsgenossenschaften*) interested an opportunity to express their opinion regarding the proposed action.

As will be subsequently noted in the section relating to the regulation of the hours of labor of adult males, the Bundesrat has also the power of prescribing the duration and time of beginning and ending work in establishments where the working of long hours is believed to be injurious to the health of the employees.

The orders issued by the Bundesrat in pursuance of the foregoing powers must be published in the official journal (*Reichsgesetzblatt*) and be laid before the Reichstag at its next session. At the present time

orders have been issued by the Bundesrat in respect to the following industries: Match factories, July 8, 1893; lead-paint and sugar-lead works, July 8, 1893; cigar factories, July 8, 1893; alkali chrome works, February 2, 1897; printing offices and type foundries, July 31, 1897; establishments for the manufacture of electrical accumulators by means of lead or lead compounds, May 11, 1898. Various orders have also been issued by the authorities of the different States of the Empire. The orders in detail follow:

MATCH FACTORIES.—The manufacture of matches by the use of white phosphorus (order of July 8, 1893) is subject to the following conditions:

1. A separate room must be provided for each of the following operations: (1) The preparation of the ignition materials, (2) the dipping of the matches, (3) the drying of the dipped matches, and (4) the filling of the boxes and the first operations of packing. These rooms may communicate directly with each other, but must not so communicate with other workrooms or sleeping or business rooms. A direct communication, however, is permitted between the dipping and the filling or setting room (*Einlegeraum*) and between the boxing and first packing room and the wareroom for finished products. Only that work can be carried on in the four rooms first indicated which is absolutely necessary, except, however, that the application of the sulphur or paraffin can be done in the dipping room.

2. The rooms provided for the first three operations indicated must be at least 5 meters [16.4 feet] high, the dipping and the boxing rooms must have fireproof roofs, and the drying room be entirely fireproof. The walls of the rooms for the preparation of the materials, drying, and boxing must be whitewashed at least once every 6 months, after the previous coat has been removed.

3. The rooms in which the materials are mixed must be so arranged that a complete change of air is secured, so that any phosphorus fumes generated are conducted outside. The materials must be prepared in air-tight closed vessels, whose opening through which they are filled serves also as a safety ventilator. The vessels containing the materials must always be kept well covered.

4. In the dipping of the matches, appliances of such a character must be used that the phosphorus fumes can not escape into the room. In case warmed dipping material is used, only those appliances can be employed which have been approved by the higher administrative authorities for this use.

5. The rooms used for drying the dipped matches must be thoroughly ventilated. If the drying rooms are artificially heated, the temperature must not be allowed to exceed 35° Celsius [95° Fahrenheit]. A thermometer must be placed in each drying room on which is plainly indicated the highest temperature that is permitted. The rooms must only be filled or emptied, when it is necessary that they should be entered, after a complete change of air is brought about by opening the doors and windows for at least half an hour or by special ventilating appliances.

6. The rooms in which the matches are placed in boxes (*Abfüllräume*) and those in which the first packing is done, where this is done in special rooms, must be so arranged that there are at least 10 cubic

meters [353 cubic feet] of air space for each person employed in them. Rooms which are roofed over must have windows which can be opened, and must be provided with sufficient means for an effective ventilation.

7. The rooms for preparing the material and for dipping and boxing the matches must be cleaned every day after the cessation of work. All refuse collected as the result of this cleaning must be immediately burned.

8. The employer must see that all the employed working in the rooms for mixing the materials and for dipping, drying, and boxing the matches, are provided with special work clothes, that the workingmen remove these clothes on quitting work in a special room apart from the workrooms, and that cases are provided in this room in which the work clothes and the ordinary clothes can be hung up.

9. The employer must not permit the workingmen to bring or eat food inside the workrooms. He must see that the meals are taken in rooms specially prepared for that purpose, which must be completely separated from the workrooms and the dressing room. Provision must also be made outside the workrooms for the heating of food.

10. There must be provided outside the workrooms, but in convenient proximity to them, a sufficient number of washing utensils, in proportion to the number of employees, and vessels for the rinsing out of the mouth.

11. The employer must see that his employees thoroughly wash their hands, rinse out their mouths with water, and remove their work clothes before taking their meals or leaving the establishment.

12. The employer must permit only those persons to be employed in the rooms mentioned in (1) who are provided with certificates from a duly authorized physician that they are not suffering from phosphorus necrosis and that their physical condition is not such as to make them susceptible to this disease. These certificates must be collected, preserved, and shown to the inspectors whenever they so request.

13. The employer must intrust the supervision of the health of his employees to a duly authorized physician, whose name must be given to the inspector, and who must examine each employee at least every 3 months, and inform the employer of every case where evidence of phosphorus necrosis is discovered. The employer, in turn, as soon as he receives such notice or learns of a case of phosphorus necrosis in any other way, must inform the factory inspector in writing. He also must not employ a workingman suffering from such a disease in any of the rooms mentioned in (1).

14. The employer must keep a register showing the employment and discharge of workingmen, their full names, ages, residences, and the dates of their employment and discharge. The examining physician must enter in this book the date and result of the physical examinations made by him. The register must be shown to the inspectors whenever they so request.

15. There must be posted in a conspicuous place in each workroom a notice giving a copy of section 2 of the law of May 13, 1884, and of the preceding sections of the present order, and also instructions for the persons employed in the room. A copy of these instructions must be given to each person employed in the rooms mentioned in (1).

16. New establishments for the manufacture of matches by the use of white phosphorus may only begin operation after notice has been given to the inspectors. These officials must, as soon as possible after

the receipt of this notice, assure themselves by a personal examination that the conditions of the order are observed.

17. The local police authorities may close any establishment in which the present order is not observed until such order is complied with.

LEAD PAINT AND SUGAR OF LEAD WORKS.—Establishments for the manufacture of lead paints or sugar of lead (order of July 8, 1893) shall be operated subject to the following conditions:

1. All the workrooms in establishments in which lead paints or sugar of lead are manufactured must be roomy, have high ceilings, be well ventilated, and be kept damp and clean. Suitable appliances must be provided to prevent the entrance into them of lead powder or lead-laden gases and vapors.

2. Apparatus which develop dust must be covered over at all points with thick layers of felt or woollen cloth, or other material equally effective, so that the escape of the powder into the room is prevented. These kinds of apparatus must also be provided with devices preventing a disturbance (*Spannung*) of the air within them. They must not be opened until the powder which has been generated has completely settled and cooled.

3. In dry grinding, packing, and shipping, and in emptying the black litharge and lead oxide furnaces, and the putting in sacks of the lead oxide, and in other operations where lead powder can find its way into the room, such escape of lead powder must be prevented by means of draft and other appliances for carrying off the powder.

4. Rooms which can not be completely protected against the entrance of lead powder or gases or vapors containing lead by means of the precautions above prescribed must be cut off from other rooms in such a way that the powder, gas, or vapor can not penetrate into the latter.

5. The inner surface of the oxidation and drying chambers must be as smooth and tight as possible. The oxidation chamber must be kept damp while it is being charged or emptied. After the oxidation process is complete, the contents of the oxidation chamber must be thoroughly wet before the chamber is entered for the purpose of emptying it, and must be kept moist while this work is taking place. In the same way the raw white lead materials must be kept moist while being transported to the washing or deposit room (*Schleimraum*) and during its storage there.

6. In the transportation and the manipulation of the wet lead paint materials, and especially in the depositing of material by washing and wet grinding, hand labor must, wherever practicable, be replaced by mechanical apparatus, so that the soiling of the clothes and hands of the persons who are employed in the work is reduced to the lowest possible degree. The extraction by pressure of the white lead deposit must only be undertaken after the lead salts which are in solution have been precipitated.

7. The employment or presence of children under 16 years of age is prohibited in places used for the manufacture of lead paints or sugar of lead. Women may only be employed in such places in those rooms and occupations which do not bring them in contact with the lead products. This section is in force until May 1, 1903.

8. The employer must permit only those persons to be employed in rooms in which lead paints or sugar of lead are made or packed who are in possession of certificates from a duly authorized physician

stating that they are neither weakly nor suffering from a lung, kidney, or stomach trouble or alcoholism. These certificates must be collected, preserved, and shown to the inspectors whenever they so request.

9. Workingmen who, in the course of their work, come in contact with lead materials or products must not be employed more than 12 hours in any 24 hours.

10. The employer must provide all employees who come in contact with lead materials or products with work clothes completely covering them and caps covering the head.

11. In work generating lead powder which can not be immediately and completely removed, the employer must permit only those persons to be employed who have the nose and mouth protected by respirators or damp sponges.

12. The employer must permit only those persons to be employed in work bringing them in contact with lead salts in solution who have the hands greased or covered with impermeable gloves.

13. Special work clothes, respirators, sponges, and gloves, as above mentioned, must be furnished by the employer to each workingman requiring them in sufficient number and in such condition as to effect the purpose for which they are intended. The employer must also see that these articles are only used by the persons to whom they are assigned, that they are kept in the places provided for them, that the work clothes are cleaned at least once a week, and the respirators, mouth sponges, and gloves each time before they are used, and that they are put away when not in use in the places provided for them.

14. A toilet or dressing and an eating room separate from each other, and in a part of the establishment free from powder, must be placed at the disposition of the employees. These places must be kept constantly clean and free from powder and be heated during cold weather. The dressing room must be provided with sufficient vessels for rinsing the mouth, soap and towels, and appliances for storing the ordinary clothes which are removed before work is begun. Appliances for heating food must be furnished in the eating room or other suitable place. Those employers having 5 or more employees must provide means by which the latter can take a warm bath at least once a week.

15. The employer must intrust the supervision of the health of his employees to a duly authorized physician, whose name must be given to the inspector, and who must examine each employee at least once a month, and inform the employer of every case where evidence of lead poisoning is discovered. The employer must not employ any person giving evidence of such symptoms in work which brings him in contact with lead materials or products until he is entirely cured.

16. The employer must keep, or cause to be kept, on his responsibility for its completeness and accuracy, by the physician having charge of the health conditions of the employees, or by an official of the establishment, a sick register, which must contain (1) the name of the person who keeps the book, (2) the name of the physician having charge of the health of the employees, (3) the name of every sick workingman, (4) the nature of the sickness and the occupation followed prior to its occurrence, (5) the date of the sickness, (6) the date when the person is cured, or, if he does not return to work, when he is discharged. This book must be shown to the inspector or proper health officers whenever they so request.

17. The employer must make regulations which, in addition to instructions in respect to the use of the protective appliances above mentioned, must contain the following provisions: Workingmen must not bring spirits, beer, or other strong drink inside the establishment. Workingmen must not bring articles of food inside the workrooms, and these articles must be kept only in the eating room. Meals, so far as they are not taken outside the establishment, must be eaten in the eating room. The workingmen must use the work clothes, respirators, mouth sponges, and gloves in those workrooms and kinds of work where their use has been ordered by the employers. The workingmen must not enter the eating room, eat their meals, or leave the establishment until they have first removed their work clothes, cleaned their hair from powder, carefully washed their hands and faces, cleaned their noses, and rinsed out their mouths. Mention must be made in these regulations that the workingmen who persistently violate them may be dismissed before the termination of their engagement. In those establishments in which at least 20 persons are employed these regulations must be incorporated in the general shop rules required by the code.

18. There must be posted in a conspicuous place in each workroom, as well as in the eating and dressing rooms, a copy of the provisions of the present order and the rules required by the preceding section. The employer is responsible for the carrying out of the provisions of the preceding section, and must discharge any employee repeatedly disregarding them.

19. New establishments for the manufacture of lead paints or sugar of lead shall not begin operations until notice of their establishment has been given to the inspectors. These officers must at once see by a personal examination that the erection of the establishment is in conformity with the prescribed provisions.

20. The local police authorities may close any establishment in which the present order is not observed until such order is complied with.

CIGAR FACTORIES.—Cigar factories (order of July 8, 1893) must be established and operated in accordance with the following conditions:

1. This order applies to all places in which the necessary appliances have been installed for the making of cigars in so far as persons other than the members of the employer's family are employed.

2. The stripping of the tobacco and the making and sorting of the cigars must be performed in rooms the floors of which are not more than 0.5 meter [19.7 inches] below the level of the ground. If the room is next to the roof the ceiling must be ceiled or plastered. The workrooms in which tobacco-making appliances are installed must not be used either as living, sleeping, cooking, or provision-storage rooms, or as rooms for the storage of the tobacco. These rooms must be provided with tight doors, which must be kept closed during working hours.

3. The workrooms must be at least 3 meters [9.8 feet] high and be provided with windows sufficient in number and size to furnish adequate light. The windows must be so made that they can be opened to the extent of at least half their area.

4. The workrooms must have hard and tight floors.

5. The number of persons who may be employed in a room must be so limited that there will be at least 7 cubic meters [247 cubic feet] of air space per person.

6. Only the tobacco or partly manufactured product necessary for a day's work, or the cigars made during the course of the day, shall be allowed to remain in a workroom. All further storage of tobacco or partly manufactured product, as well as the operations of drying, separating, or twisting of tobacco after work hours, is prohibited in workrooms.

7. The workrooms must be thrown open for a complete airing at least twice a day for half an hour, and also during the noon rest and after the ending of the work, by opening the windows to their full extent and the doors which do not lead to the living, sleeping, cooking, and storage rooms. During these times the employees must not be allowed to remain in the rooms.

8. The floors and worktables must be washed or thoroughly cleaned from dust at least once a day.

9. The clothes taken off during the work period must be cared for outside the workrooms. They may, however, be kept inside the workrooms if closed cases are provided in which to place them. These cases must be closed while the work is being carried on.

10. Exceptions to the provisions of (3), (5), and (7) may be granted by the higher administrative authorities, upon the request of the employer, if the workrooms are provided with adequate means of ventilation. In the same way the height of room required by (3) may be reduced if more than the air space required by (5) is provided.

11. Until May 1, 1903, the employment of women and children under 16 years of age shall be subject to the following conditions: Women and children must be employed and paid directly by the persons for whom they work, and not through or on account of a third person. Separate water-closets with separate entrances must be provided for the men and women, and when a change of clothes is made before beginning and after ending work, separate dressing rooms. The provision regarding employment does not apply where the employees stand in the relation to each other of husband and wife, brothers or sisters, or direct ascendants or descendants; and that concerning water-closets and dressing rooms does not apply to places in which not more than 10 persons are employed.

12. A notice, signed by the local police authorities attesting its correctness, must be posted at the entrance of each workroom showing the length, breadth, and height of the room, the cubic meters of air space that it contains, and the number of persons who may consequently be there employed. A notice must also be posted in each workroom giving in clear letters the provisions of the present order.

ALKALI CHROME WORKS.—Alkali chrome works (order of February 2, 1897) shall only be established and operated subject to the following conditions:

1. The trituration and mixture of the raw materials must only be made in apparatus so arranged that it prevents, as far as possible, the escape of the powder into the workrooms.

2. All apparatus employed in the manufacturing operations that produce chrome powder or vapor must be provided with appliances to prevent, as far as possible, the escape of such powder into the workrooms. The reduced materials must only be transported when in a liquid state or in tightly closed vessels. They must be placed in rooms apart from the workrooms, except when they must be near the furnaces. The crystallization and evaporation basins and all other vessels

holding solutions of a temperature of more than 50° C. [122° Fahrenheit], as well as acidification jars, must be provided with tight pipes leading directly to the open air or a chimney.

3. The subsequent work with solid chromates, and especially the operations of drying, sifting, trituration, and packing, must be performed in places apart from the other workrooms. The grinding of the chromates must be done in hermetically closed apparatus.

4. The workrooms and courts must be kept as far as possible from contamination by chromates. Any chromates that may penetrate by leakage or otherwise must be removed as soon as possible. The floors, walls, stairways, and railings must be kept clean. The workrooms must be cleaned whenever necessary, and at least once a month.

5. The employer must furnish his employees with work clothes and caps appropriate for the work performed.

6. That work in the course of which it is impossible to prevent the giving off of powder, and the complete and immediate removal of the same can not be accomplished through ventilation, must be given only to workmen who are provided with protection appliances furnished by the employer, such as respirators, sponges, cloths, or other means for protecting the mouth and nose. This provision applies particularly to the work of extracting the pulverized material from the drying furnaces, placing it in the fusion furnaces, the emptying of the latter, and the placing of the dry material by means of a shovel in receptacles for shipment, and the work of drying, sifting, and packing of the finished chromates.

7. The employer must make regulations concerning, and exercise a supervision over, the use and care of the work clothes of the employees and the respirators and other protective appliances, to insure that they are regularly used and only by the persons for whom they are intended; that the clothes are cleaned at least once a week; that the respirators, mouth sponges, etc., are cleaned each time they are used; and, finally, that during the time they are not in use that they are kept in the place specially provided for their guarding.

8. The employer must provide for his employees, in a part of the establishment protected from powder, a room in which they can wash and change their clothes, and another room in which they can eat their meals. These rooms must be kept clean and free from powder and be heated during cold weather. The toilet room must be furnished with a sufficient quantity of water, vessels for rinsing the mouth, brushes for cleaning the hands and nails, soap and towels, as well as a place in which to keep the clothes taken off before work is begun. The employer must also provide means whereby the employees working with chromates can take a warm bath twice a week.

9. Women and children under 16 years of age must not be employed in places where they are brought in contact with chromates.

10. The employer must only employ in the preparation of chromates those persons who are supplied with a certificate from a duly authorized physician stating that they have no wound in the skin, sore, or skin eruption. These certificates must be collected, preserved, and be shown to the factory inspectors whenever they so request.

11. The employer must place a physician in charge of the supervision of the health conditions of the employees occupied in the making of chromates and inform the inspector of his name. This physician must examine all the employees at least once a month and state for

each one specially whether he has a sore in the skin or any disease of the nose or pharyngeal cavity.

12. The employer must take all necessary precautions to insure that the employees are on the lookout for even slight abrasions of the skin, especially on the hands, and in case such are found that bandages supplied for that purpose are applied by the physician or some one duly authorized by the latter to perform such services. A duly authorized person must examine the faces, forearms, and hands of all the employees every day before they begin or during their work.

13. When so ordered by the physician, those workmen who exhibit symptoms of any malady due to the action of chromates—such, for example, as a sore in the skin or an erosion of the mucus membrane of the nasal passages—must be removed from the work of preparing chromates until they are completely cured. Those who show themselves to be especially susceptible to injurious effects from this work must be definitely prohibited from its performance.

14. The employer must keep, or cause to be kept, a register of all cases of sickness of employees in the establishment. He is responsible for all omissions or inaccuracies of entries, except those emanating from the physician. This register must show the name of the person who keeps the book, the name of the physician charged with the supervision of the physical condition of the employees, the names of employees attacked by disease, the nature of the disease and the occupations pursued prior to its attack, the date when the disease is declared, the date when the person is declared cured, or, if the invalid does not return to work, when he is discharged, and the date and results of the general medical examinations above prescribed.

15. The employer must prepare a set of regulations, which, in addition to the rules prescribed for (5) and (6), must contain the following provisions: Workingmen must not bring articles of food or drink inside, and meals must be consumed outside, the workrooms. Each workingman must make use of the clothes, masks, respirators, and other protective appliances that are assigned him in the shops and for the work designated in the regulations prepared by the employer. Workingmen must carefully wash their faces and hands before eating their meals. At the end of their day's labor, and before leaving the establishment, they must take off their work clothes, carefully wash their hands and faces, and rinse their mouths and noses without the use of any appliance. Mention must be made in these regulations that the workingmen who persistently violate them may be dismissed without notice before the termination of their engagement. If 20 workingmen or more are regularly employed in an establishment, these regulations must be incorporated in the general shop rules of the establishment.

16. There must be posted in each workroom, as well as in the toilet and eating rooms, a copy of the present order and of the rules required by the preceding section.

PRINTING OFFICES AND TYPE FOUNDRIES.—Printing offices and type foundries (order of July 31, 1897) must be operated in conformity with the following provisions:

1. In places where persons are employed in setting type or in making type or stereotype plates the following rules must be observed: The floors of the rooms must not be more than 1 meter [3.3 feet] below the level of the ground. Exemptions from this rule, however, can be

authorized by the higher administrative authorities where it is shown that hygienic conditions are maintained by a proper isolation of the floor, ventilation, and lighting. Rooms immediately under the roof must not be used unless the ceilings are ceiled or plastered.

2. In places where type or stereotype plates are made there must be provided at least 15 cubic meters [529.7 cubic feet] of air space per person employed. In other places there must be at least 12 cubic meters [423.8 cubic feet] per person. In urgent cases, however, the authorities may permit, during not more than thirty days in a year, places to be occupied by a larger number of persons, but there must be not less than 10 cubic meters [353.1 cubic feet] of air space for each person.

3. The height of workrooms must be at least 2.60 meters [8.5 feet] when they contain not less than 15 cubic meters [529.7 cubic feet] of air space per person, and 3 meters [9.8 feet] in other cases. The rooms must be provided with windows sufficient in number and size to light the places properly when work is being carried on. The windows must be so constructed that the rooms can be properly ventilated by their means. When the ceilings are slanting the average height must be not less than that indicated above.

4. Workrooms must be provided with hard and tight floors, from which dust after it is moistened can be easily collected. Wooden floors must be planed and made impermeable to moisture. The walls and ceilings, so far as they are not covered with a hard glazed surface capable of being easily washed, or oil painted, must be whitewashed at least once a year. The glazed or painted surfaces must be washed at least yearly, and the paint must be renewed every ten years if it is varnished, or every five years if not so treated. The stands and cases containing the type must either descend to the floor in such a way that dust can not accumulate under them, or be raised on legs, so that the floor under them can be easily swept.

5. The workrooms must be completely aired once a day at least, and in addition must be properly ventilated during the progress of the work.

6. The furnaces for fusing the metals must be furnished with a strong draft for the purpose of conducting outside or up a chimney the vapors which are generated. The alloying of the metals, as well as the melting of the waste, must take place either in special rooms or in other rooms after the workingmen, other than those engaged in that work, have been made to leave the room.

7. The workrooms and their adjuncts, as well as the walls, windows, and door frames and beams, must be thoroughly washed twice a year. The floors must be swept or washed at least daily.

8. The cases containing the type must be cleaned before they are made use of, and as often as is necessary during their use, but in any case at least twice a year. The blowing of the dust out of these cases must be by means of bellows in the open air, and must not be performed by young persons.

9. Cuspidors in the proportion of at least 1 for every 5 persons must be provided in the workrooms, and must be filled with water which must be renewed each day. The employer must prohibit expectoration upon the floor.

10. Washing utensils and soap must be placed at the disposal of the compositors, as well as the foundrymen, polishers, and grinders, in the

workrooms or rooms adjoining them. At least 1 towel per week must be furnished each workingman. Unless there is a sufficient supply of running water, there must be at least 1 wash basin for 5 persons, and a sufficient supply of pure water, which, after it has been used, can be poured out on the spot. The employer must see that the workingmen make use of these appliances before taking their meals in the establishment and before leaving the establishment.

11. The clothes taken off during the work must be taken care of outside the workrooms. They may, however, be kept inside the workrooms if closed cases or ones covered by curtains are provided, in which they will be protected from dust. These cases must be closed during the progress of the work.

12. Lighting apparatus which gives forth considerable heat must be provided with devices or so arranged that the heat thus generated does not discommode the inmates.

13. The employer must issue rules making it obligatory upon his employees to observe the regulations given above concerning their action. If 20 workingmen or more are regularly employed, these regulations must be incorporated in the general shop rules.

14. A notice, signed by the local police authorities attesting its correctness, must be posted in each workroom, which shows the length, breadth, and height of the room, the number of cubic meters of air space that it contains, and the number of persons who consequently can be employed in it. There must also be posted in a conspicuous place a copy of the foregoing provisions.

Certain exceptions to the provisions of this order, so far as it relates to the number of persons who may be employed in proportion to the amount of air space in workrooms, may be accorded by the higher administrative authorities during the 10 years following the taking effect of the order in the case of establishments already in operation. These provisions, being but temporary, are not reproduced.

ESTABLISHMENTS FOR THE MANUFACTURE OF ELECTRICAL ACCUMULATORS.—Establishments for the manufacture of electrical accumulators by the use of lead or lead compounds (order of May 11, 1898) must be arranged and operated subject to the following provisions:

1. In establishments for the manufacture of electrical accumulators by the use of lead or lead compounds, the places where lead or lead compounds are prepared or applied must be at least 3 meters [9.8 feet] high, and be furnished with windows that can be opened, permitting the air to be renewed in sufficient quantity. Places in which the plates are formed or loaded must be furnished with appliances for inducing an energetic ventilation.

2. In places where powder of lead or lead compounds are produced or diffused during the course of the work, the floor must be made water-tight. The walls and ceiling, so far as they are not covered with a continuous coat susceptible of being washed or oiled, must be whitewashed at least once a year. The employment of wood, soft asphalt, or linoleum to cover the floor, or of wall paper or draperies to furnish the walls, is prohibited.

3. The furnaces for melting the lead must be provided with hoods, inducing a strong draft leading directly into the open air or a chimney.

4. In places where the lead plates are made mechanically by means of a belt saw, a circular saw, a planing machine, or other similar apparatus, all possible care must be taken that the pieces of lead that

are detached, as well as the lead powder formed, are immediately collected at the moment they are produced by means of suitable appliances.

5. Apparatus used for the manufacture of metallic lead powder must be so inclosed and constructed that no powder can escape during either its production or removal.

6. The sifting, moistening, and mixing the material for applying to the plates, so far as it contains lead or lead compounds, the raising of the covering, consisting of paper or other similar material, of the dried plates, as well as all other manipulations of the dry or dried material which produces powder, must be done under appliances having a strong draft, or so constructed that the powder can not possibly escape.

7. The open vessels which contain the lead or lead compound powder must be placed upon a grate, which in turn must be on a plate with a raised border, so that in emptying the vessel any material escaping will be collected upon the plate.

8. The following operations must be conducted in special rooms apart from the other work places: (1) The mechanical preparation of the lead plates (grates or frames); (2) the mechanical preparation of lead compounds; (3) the making and mixing of the material to be applied to the plates (*Füllmasse*), so far as it is accomplished mechanically.

9. The tables used in applying the material to the plates must have a hard and smooth surface and must be washed with water at least once a day.

10. The work of soldering, which is done by means of a hydrogen or coal gas blow flame, must be done, as far as the nature of the work permits, in special places provided with strong drafts. This provision, however, does not apply to soldering work having for its purpose the uniting of elements, and which can not be performed outside of the preparation rooms.

11. The zinc used in the preparation of the hydrogen gas and the sulphuric acid used in the course of the work must be chemically pure.

12. The workrooms must, as far as possible, be guarded against contamination by lead or lead compounds. In the places indicated in (2) the floors must be washed at least once a day after the cessation of work.

13. The employer must place at the disposition of all his employees who are engaged in the making of accumulators a sufficient number of properly made work clothes and caps. He must insure, by the preparation and enforcement of special regulations, that the garments are only used by the persons to whom they are assigned; that they are washed at least once a week, and that while not in use they are kept in places specially prepared for them.

14. A toilet and an eating room separate from each other, and in a part of the establishment to which powder can not penetrate, must be placed at the disposition of the employees. These places must be kept constantly clean and free from powder and be heated during cold weather. The toilet room must be supplied with a sufficient quantity of water, vessels for rinsing the mouth, brushes for cleaning the hands and nails, soap and towels, and places in which to keep the clothes taken off before beginning work. Employers must provide means whereby their employees can take a warm bath at least once a week.

15. Women and children under 16 years of age must not be employed in work which brings them in contact with lead or lead compounds.

16. The employer must employ only those persons in the making of accumulators who are provided with certificates from a physician duly authorized by the higher administrative authorities, stating that their health is such that they can exercise this occupation. These certificates must be collected, preserved, and shown to the inspectors upon their request to see them.

17. The employment of workmen charged with the making, mixing, or application of the material to the plates must be so regulated that their work period either does not exceed 8 hours per day and is broken by an interval of rest of at least $1\frac{1}{2}$ hours or does not exceed 6 hours per day without interruption. In the second case the workmen may still be employed elsewhere in the establishment, provided that during this work they are not brought in contact with lead or lead compounds and that a rest of at least 2 hours intervenes between the two kinds of work. The employer must, within the week following the taking effect of this order or the opening of his establishment, inform the local police authorities of the manner in which he elects to organize the periods of work, and no change shall be made in this arrangement until the police authorities are notified.

18. The employer must confide the examination of the physical condition of his employees to a physician, whose name must be given to the inspector, and who must examine each employee at least once a month to see if he shows any symptoms of a disease that can be traced to lead. If the physician so orders, employees presenting such symptoms must not be employed in work bringing them in contact with lead or lead compounds until they are cured. Those who show that they are specially susceptible to lead poisoning must be permanently taken off of such work.

19. The employer must keep a register showing the employment and discharge of workmen, the number actually employed, and their condition as regards health. He is responsible for the exactness and completeness of these entries so far as they do not emanate from the physician. This register must show the full name, age, residence, date of employment and discharge of each employee, and the nature of his work; the name of the person who keeps the register; the name of the physician charged with the examination of the employees; the date and nature of any illness of an employee and the date of his cure; the dates and results of the general physical examination above prescribed.

20. The employer must make regulations, obligatory upon employees engaged in making accumulators, covering the following points: Workmen must not bring food or drink inside the shops. The introduction or consumption of spirits in the establishment is prohibited. Meals must be eaten outside the workrooms. Workmen must use the work clothes provided for them in accordance with the regulations concerning them. Workmen must not enter the eating room, take their meals, or leave the establishment until they have removed their work clothes and carefully washed their hands and faces and rinsed their mouths. Smoking or chewing of tobacco or the taking of snuff during working hours is prohibited. Mention must be made in these regulations that the workmen who persistently violate them may be dismissed without notice before the termination of their engagement. In those establishments which are required by the

code to have general shop regulations, these rules must be incorporated in those regulations.

21. There must be posted in each workroom, as well as in the toilet and eating rooms, a copy of the present order and the rules required by the preceding section.

22. The local police authorities may close any establishment in which the present order is not observed until such order is complied with.

HOURS OF LABOR OF ADULT MALES.

The number of hours of labor that can be required of adult male laborers is not directly limited by law. The Bundesrat, however, has been given the power of fixing the time that work shall begin and end and the maximum duration of a day's labor in those industries in which it deems that long hours are especially injurious to the health of the employees. It is evident that, under this provision, the Government has the power of limiting the hours of labor of adult workingmen in particular industries.

The extent to which the hours of labor of adult males has actually been limited can be seen by reference to the orders promulgated by the Bundesrat regarding the conduct of work in particular industries, as given in the section in relation to the prevention of accidents and the protection of the health of employees, and to the order of March 4, 1896, in relation to bakeries and confectioneries, a summary of which follows. This is the only order that has been issued having as its main purpose the protection of the health or lives of employees by limiting their hours of labor. The other orders provide for such limitation only indirectly, their main purpose being to regulate the conditions under which labor must be performed in those establishments presenting dangerous or unhealthy features.

The essential provisions of the order of March 4, 1896, in relation to bakeries and confectioneries, are as follows:

Bakeries and those confectioneries in which workingmen or apprentices are employed in manufacturing bakery products at night—that is, between the hours of 8.30 p. m. and 5.30 a. m.—are subject to the following regulations:

1. The duration of the work shift of employees shall not exceed 12 hours per day, except when it is broken by a rest of 1 hour, when it may equal 13 hours, including the hour for rest. No employee shall work more than 7 shifts per week. Workingmen may be employed occasionally in supplemental work, such as the preparation of yeast, in addition to their regular shifts, but not regularly, and then for not more than half an hour. In all cases not less than 8 hours' intermission must be allowed employees between shifts.

2. The hours of labor of apprentices must be 2 hours less than those of other workingmen during the first year of apprenticeship, and 1 hour less during the second, and the duration of the intervals of rest between the work shifts must be correspondingly increased.

3. Workingmen and apprentices may, however, be permitted to

can not be employed until they have fulfilled the legal requirements concerning school attendance. (a)

Children who have not completed their fourteenth year can not be employed more than 6 hours a day, which must be broken by a rest of at least half an hour; and children not having completed their sixteenth year can not be employed more than 10 hours a day, broken by intervals of rest of at least 1 hour in the middle of the day and half an hour in the morning and in the afternoon. During these intermissions the children must not be employed in any way in the factory, and may only be permitted to remain in the workrooms if those parts of the machinery at which they are employed are completely stopped, or when on account of bad weather or sickness it is not desirable to have the children go outside, or the provision of special accommodations presents special difficulties.

For persons under 16 years of age work must not begin before 5.30 a. m. nor continue later than 8.30 p. m.; nor can these persons be employed on Sundays or holidays or during the time set aside by their pastor for religious service and instruction.

Especial precautions are taken to enable children to receive an adequate general and technical education. Employers are required to permit all of their employees under 18 years of age to attend finishing schools (*Fortbildungsschulen*), or schools for the training of women in household duties if they desire to do so, or if they are so obligated by local statutes. A commune, or a union of communes, may make it obligatory for male workers under 18 years of age to attend finishing schools, provided a provincial law to that effect does not already exist. This obligation may be dispensed with in the case of persons attending a guild or other technical school if the higher administrative authorities regard the instruction there given sufficient to replace that of a regular finishing school. These provisions regarding schooling apply equally to apprentices in mercantile establishments.

a Children under 14 years of age are also prohibited by the law from offering goods for sale or peddling in public highways, streets, or places, or from house to house, except that in places where this is customary the local police authorities can permit such work at specified periods, the total duration of which must not exceed 4 weeks in any one calendar year. This prohibition, however, does not apply to the selling of raw agricultural, garden, forestry, apiary, or fishing products, or poultry raised or directly obtained by the persons themselves, or the selling of goods produced at home, within 15 kilometers (9.3 miles) of the home, and which are regarded as pertaining to the weekly market trade, though the local police authorities may prohibit the employment of children under 14 years of age in this way.

It is likewise prohibited for persons employed in itinerant work taking them from town to town to have children under 14 years of age accompany them. Where permissions have been granted prior to the going in force of this provision, they must be revoked unless sufficient provision is made for the education of the children. The foregoing provisions likewise apply in respect to persons of the opposite sex accompanying itinerants unless they are married to the persons they accompany or are their children or grandchildren over 14 years of age.

In order to facilitate the execution of the law concerning the employment of children, it is obligatory upon all minors not of compulsory school age, as a condition precedent to employment, to be provided with a pass book (*Arbeitsbuch*). This obligation was first imposed by the law of 1878. The book must contain the name, address, date of birth, and signature of the owner, and the name and last address of the father or guardian, and must be duly stamped by the authorities, and the latter must keep a record of all books issued.

Upon the owner being employed, the book is surrendered to the employer, who retains it until the owner leaves his service. The employer must enter in it the dates at which its owner entered and left his service and the nature of the employment. When employment ceases, the book is surrendered by the employer to the father or guardian of the employee, if they so request, or if the employee has not completed his sixteenth year. Otherwise it is handed directly to the employee. The purpose of this provision is to strengthen parental authority, the parent or guardian thus having control over the action of the child or ward in respect to the making and breaking of labor contracts.

Employers and not the employees are punished in cases where minors are employed who do not have in their possession pass books, as above provided. These books are furnished gratuitously by the communal authorities upon the request or with the consent of the parent or guardian. When the parent or guardian refuses his consent, to the injury of the employee, the communal authorities can give the book without it. Before a book is granted it must be certified that the minor is no longer of compulsory school age, and that the recipient has never had a pass book. When a new book is issued on account of the loss, destruction, or completion of a former book the fact must be noted in the new book. A charge of 50 pfennigs (\$0.12) can be made for the new book issued under these circumstances. The form of the pass book is determined by the imperial chancellor.

The entries in the books must be made in ink by the employer or a manager of the establishment specially authorized. No marks can be made which may be construed favorably or unfavorably to the owner, nor can entries be made regarding the latter's conduct or capabilities, nor concerning any matters not specified in the law.

If an employer fails to surrender promptly a pass book when legally required to do so, or refuses to make the necessary entries, or unlawfully enters remarks or signs in the book he is liable to a fine of not more than 20 marks (\$4.76) or imprisonment not exceeding 3 days. He is also liable for damages to the employee provided the latter enters suit or makes a formal complaint within 4 weeks.

As a further protection to children, the law provides that wherever persons under 18 years of age are employed special precautions must

be taken for the preservation of their health and their protection against accidents and immoral influences.

In regard to the employment of females, no distinction is made between girls under 16 years and boys of the same age. The most important provision regarding the employment of women is that females over 16 years of age shall not be employed in industrial establishments more than 11 hours per day and on the days preceding Sunday and holidays not more than 10 hours. Women also must not be employed at night, that is between the hours of 8.30 p. m. and 5.30 a. m., nor on Saturday and days preceding holidays after 5.30 p. m. All women must be given not less than 1 hour for rest in the middle of the day, and females over 16 years of age who have household duties to perform must at their request be dismissed half an hour before the noon intermission when the latter is not at least 1½ hours long.

Women are not allowed to work during the 4 weeks following their confinement, and this period must be extended to 6 weeks unless they can obtain a certificate from a physician stating that they are physically fit for work.

In addition to these restrictions upon the employment of women and children, specifically set forth in the law itself, the broad power is given to the Bundesrat to draw up regulations prohibiting, or permitting only under certain specified conditions, the employment of these classes in those industries in which the conditions of work are especially dangerous to the health, lives, or good conduct of the employees. In virtue of this power the Bundesrat has promulgated a number of important orders specifying the conditions under which children and women can be employed in particular industries. (*a*)

That exceptions to the general restrictions upon the employment of women and children should be permitted in certain cases where their enforcement would work a hardship is fully recognized by the law. These exceptions are of two kinds, those of a temporary nature and due for the most part to accidental occurrences, and those which are permanent and have their justification in the nature of the work performed or the conditions under which it must be prosecuted.

Exceptions of the first kind are granted by the local or superior administrative authorities. The local authorities can, upon the request of an employer, permit the employment of women over 16 years of age until 10 p. m. on week days, with the exception of Saturday, provided the duration of the day's work does not exceed 13 hours, in cases where there is an unusual pressure of work—as, for example, in those industries which are prosecuted with exceptional activity during certain seasons of the year. This permission can not be for more than 14 days at any one time, and no employer can be accorded the privilege for more than 40 days in any one calendar year. If the privilege

a For a synopsis of these orders see pages 356-363.

is desired for more than 14 days at any one time, or more than 40 days in the same calendar year, the permission of the superior administrative authorities must be obtained, which can not be granted unless the hours of labor are so regulated that the average yearly working day does not exceed that fixed by law.

The requests for permission to work overtime must be made in writing, and must state the reason why the permission is asked, the number of females to be so employed, the extent of the overtime work proposed, and the period during which it will continue. The reply to these requests must be given by the lower authorities in writing within 3 days. If permission is refused an appeal can be made to the superior authorities. The lower authorities must keep a record of all cases where permission for overtime work has been granted, which must show the name of the employer and the other matters contained in the prescribed application.

Further exceptions to the general regulations may be granted when the work of an establishment is interrupted in consequence of an accident or some other unforeseen cause. In such cases permission may be granted by the superior administrative authorities to further extend the hours of labor of women and to shorten their 1-hour intermission during a period of 4 weeks, and by the chancellor for a longer period. In cases of emergency, as where disasters may be averted, the lower authorities may grant this permission for a period not exceeding 14 days. For the same reason and in the same manner the provisions regarding the hours of labor of children may be suspended.

In case the character of the work or the labor conditions are such that further alterations in the hours of labor are desirable in individual cases where women or children are employed, special permission may be granted by the superior administrative authorities, or by the chancellor, provided, however, that in no case can children under 16 years of age be allowed to work continuously for more than 6 hours without an intermission of 1 hour, and that no change in the legal maximum working day prescribed for them is made in virtue of this provision.

The lower administrative authorities may also permit the employment of women over 16 years of age who have no household duties to perform, or who do not attend a finishing school on Saturday and days preceding holidays after 5.30 p. m., but not later than 8.30 p. m., in such supplementary work as cleaning up, guarding establishments, etc., or when their labor is necessary to prevent the loss of raw materials or products. The permission must be given in writing and preserved in the establishment.

The exceptions to the general regulations granted by the Bundesrat are permanent, because they are permanent, but they are not granted for particular establishments, but for the whole of Germany in this respect.

In industrial establishments requiring the maintenance of a continuous fire, or in which regular night and day work is necessary, or where, on account of the peculiar character of the work, regular hours of labor can not well be maintained, or the work is limited to certain seasons, it can set aside the provisions regarding the hours of labor of women and children, their employment on Sundays and holidays, their hours of rest, etc. In these cases the weekly hours of labor can not exceed 65 (in tile works 70) hours for women, 36 hours for children under 14, and 60 hours (in tile works 70) for children from 14 to 16 years of age. The night work, in the case of both women and children, can not exceed 10 hours in every 24, with at least 1 hour intermission in each shift. The day and night shifts must be changed weekly.

In industries where a pressure of work occurs regularly at certain seasons the hours of labor of women may be extended to not more than 13 hours per day, except on Saturday, when the 10-hour limit can not be exceeded. This permission can not be granted for more than 40 days in any one year, except when the hours of labor are so regulated that the average working day for the year does not exceed that fixed by law.

Finally, the Bundesrat may shorten or dispense with the intermissions prescribed for children under 16 years of age, where the nature of the operations or consideration for the employees makes it desirable, provided that the children are not employed more than 6 hours without one or more intermissions aggregating 1 hour.

The orders of the Bundesrat may relate to the whole Empire or only to certain districts. They must be published in the official journal (*Reichs-Gesetzblatt*) and be placed before the Reichstag at its next session.

In pursuance of the powers above enumerated given to the Bundesrat, both to further restrict the employment of women and children in particular industries, and to permit exemptions from the general regulations contained in the law concerning their employment, it has issued a series of orders, reproduced at the end of this section, which set forth in detail the particular conditions under which these classes can be employed in the special industries to which the orders relate.

In order that a proper control may be exercised, the law requires all employers contemplating the employment of women or children to make a written declaration to the local police authorities before they begin operations. This declaration must contain all the information necessary for the maintenance of a rigid control by the authorities; the name and location of the establishment; the hours of labor; the time of beginning and stopping work; the hours and length of intervals of rest; and the nature of the work prosecuted. No change can be made in this arrangement until the police have been notified.

Employers must also post in a conspicuous manner in the rooms where women or children are employed a notice, in a form prescribed by the authorities, giving an extract of the provisions regarding the employment of women and children; and where children are employed, a list of the children there employed, their working days, hours of labor, and periods of rest.

Following are the orders setting forth the conditions under which women and children may be employed in the special industries to which the orders relate:

INDIA-RUBBER WORKS.—In india-rubber works (order of July 21, 1888) the employment of women and children under 16 years of age in the preparation of so-called "preservatives," or materials serving the same purpose, is prohibited.

GLASS WORKS.—The employment of women and children under 16 years of age in glass works (order of March 11, 1892) is subject to the following conditions:

1. Females must not be employed nor their presence permitted in rooms where furnaces (smelting, annealing, flattening) are installed, or in other places in which a high temperature is maintained. Exception, however, may be granted by the Bundesrat.

2. Boys under 14 years of age and girls under 16 years of age must not be employed in grinding. In plate-glass works boys under 14 years of age must not be employed at the smelting or flattening ovens or in the carrying of rollers if they weigh more than 5 kilograms (11 pounds).

3. Boys under 16 years of age, so far as their work in glass works is permitted according to the present order, may only be employed when they are in possession of certificates from a physician duly authorized by the higher administrative authorities to issue such documents, that their bodily development is such that their employment will not be detrimental to their health. These certificates must be surrendered to the employer, who will treat them as he must the labor pass books according to the code.

In glass works in which the glass is at the same time smelted and made into finished products the general provisions of the code regarding the hours of labor, intervals of rest, night work, etc., of boys under 16 years of age apply only as modified by the following regulations:

1. Boys under 14 years of age must not be employed more than 6 hours, including the intervals of rest, in any 24 hours, nor more than 36 hours, including intervals of rest, in a week.

2. The labor period of boys from 14 to 16 years of age must not exceed 12 hours, inclusive of intervals of rest, or 10 hours, exclusive of intervals of rest; nor must they be employed more than 60 hours, exclusive of rest periods, in a week. Intermissions of work of less than a quarter of an hour's duration are not considered as rest periods; and one of the intervals of rest must be for at least half an hour.

3. Where work is prosecuted day and night, there must be a weekly change of shifts. This provision does not apply to glass works in which the work is so regulated that the boys have an interval of rest of at least 24 hours' duration between the two shifts. The work in each shift must be broken by one or more intermissions, the total duration of which is at least 1 hour.

4. Boys under 16 years of age must not be employed during the intermissions for adults, and boys under 14 years must not be employed during the intermissions for boys from 14 to 16 years of age.

5. There must be an intermission of at least 12 hours between two labor periods.

6. On Sunday and holidays the work period must not fall between the hours of 6 a. m. and 6 p. m. This provision only applies to the first day when several holidays follow each other.

In glass works in which the smelting shift and the manufacturing shift change with each other the provisions of the code limiting the hours of labor of children, their intervals of rest, and employment at night and on holidays and Sunday, apply only as modified by the following regulations:

1. The labor period of boys under 14 years of age must not exceed in duration half that of the adults, nor be longer than 6 hours, unless intervals of rest of a total duration of at least 1 hour are permitted between the working hours. The total number of hours worked in a week must not exceed 36. Not more than half the total duration of work in any 2 weeks must fall between the hours of 6 p. m. and 6 a. m.

2. Boys from 14 to 16 years of age must not be employed more than 60 hours, exclusive of intervals of rest, in a week, and not more than half the time worked in any 2 weeks must fall between the hours 6 p. m. and 6 a. m. The duration of the periods of rest must be at least 1 hour for shifts of not more than 10 working hours and 1½ hours for longer shifts. Intermissions of work of less than a quarter of an hour's duration are not counted in reckoning the duration of rest periods. One of the rest periods must be at least half an hour in duration.

3. The work period, exclusive of intervals of rest, must not exceed 10 hours during the hours from 6 p. m. to 6 a. m.

4. Boys under 16 years of age must not be employed during the intermissions for adults, and boys under 14 years must not be employed during the intermission for boys from 14 to 16 years of age.

5. There must be an interval of rest between two labor shifts. For boys under 14 years of age this period must be at least as long as a complete labor shift for adults; and for boys from 14 to 16 years of age the period must be at least as long as the shift just ended. During the interval of rest boys under 14 years of age must not be permitted to perform supplementary work. Such work is permitted to boys from 14 to 16 years of age if they are, before the beginning or after the ending of such employment, without work for a time equal to the last ended shift. The time employed in supplementary work must be included in the total duration of employment permitted during the week.

6. The work period must not fall between the hours of 6 a. m. and 6 p. m. on Sunday more than once in 2 weeks.

In glass works subject to the foregoing provisions in respect to works in which the glass is at the same time smelted and made into finished products, and in which the smelting and manufacturing shifts change with each other, the provisions of the code regarding the giving of notice to the authorities and the posting of notices by establishments employing children apply as modified by the following regulations:

1. The list of children to be posted must be so prepared that the persons employed in the same shift must be shown in separate divisions for the boys under 14 years of age and those from 14 to 16 years of age.

2. In glass works in which the smelting and manufacturing shifts change with each other the notice need not show the labor day, the labor period, and the intermissions of work. Instead there must be annexed to the notice a table showing, according to the prescribed form, the information required by it. This table must give information concerning at least the last 14 manufacturing shifts.

3. In rooms in which children are employed there must also be displayed, in addition to the notice required by the code, a second notice giving the provisions of the present order applicable to the establishment.

WIRE-DRAWING MILLS.—The employment of women and children in wire-drawing mills making use of water power (order of March 11, 1892) is subject to the following conditions:

1. When a division of the work into equal shifts can not be temporarily adhered to on account of drought, frost, or flood, children under 14 years of age and women must not be employed in the manufacture of the wire, nor their presence permitted in the rooms devoted to that purpose.

2. For the employment of boys from 14 to 16 years of age under the circumstances above indicated the general provisions of the code apply, with the following modifications:

(a) The total duration of their labor, exclusive of intervals of rest, must not exceed 60 hours in a week, and the duration of work between the hours of 6 p. m. and 6 a. m., exclusive of periods of rest, must not exceed 10 hours. The duration of the periods of rest must be at least 1 hour for shifts of not more than 10 working hours and 1½ hours for longer shifts. Interruptions of work of less than a quarter of an hour are not taken into consideration in estimating the rest periods. Where there are a number of rest periods, one must be of at least half an hour's duration.

(b) A period of rest must be allowed between two labor shifts of a duration at least that of the shift just ended. Supplementary work must be included in calculating the total duration of a week's labor.

(c) The children must not be employed during the intervals of rest for the adults.

(d) On Sunday the work period must not fall oftener than once in 2 weeks during the hours from 6 a. m. to 6 p. m.

3. In wire-drawing mills coming under the foregoing provisions the requirements of the code regarding the posting of notices apply, subject to the following modifications:

(a) The list of children employed, the posting of which is required, must be so prepared that those employed in the same shifts form separate lists.

(b) The notice need not contain information concerning the work periods, the work day, and the intermissions. Instead, there must be a table in which must be entered during, or immediately after, each shift the prescribed entries. This table must give information concerning at least the last 14 shifts. The name of the person keeping the record must also be given.

(c) A notice giving the provisions of the present order must be posted in rooms in which children are employed in the establishments to which this order relates.

CHICORY WORKS.—In chicory works (order of March 17, 1892) women and children under 16 years of age must not be employed nor

permitted in rooms used for drying. A copy of the present order must be posted in all rooms of establishments having drying rooms in which establishments women or children are employed.

SUGAR FACTORIES AND REFINERIES.—In sugar factories and refineries (order of March 24, 1892) the employment of women and children under 16 years of age is permitted only subject to the following conditions:

1. The employment of women and children is absolutely prohibited in the washing and soaking of beet root, on the hoists, or in the transportation of beets and cut-up beets in trucks difficult to move. Their employment or presence is also prohibited in the filling house (*Füllhaus*), in the centrifugal rooms, in the crystallizing, drying, and mash rooms, and in other places where a very high temperature is maintained while the work is in progress.

2. The following modifications are made in the provisions of the code regarding night work, rest periods, etc., of working women over 16 years of age:

(a) They must not be employed at night on the sugar floor (*Zuckerboden*) or in the drying of the cut-up beets, and furthermore may only be employed in such work as is necessary for the maintenance of the continuous prosecution of the industry.

(b) Their employment at night must not exceed 10 hours in every 24, and there must be in each shift several intervals of rest, one of which must be at least 1 hour in duration. The total duration of labor in both day and night shifts must not exceed 65 hours in a week. An interval of rest of at least 12 hours must intervene between two night shifts. The women must alternate between night and day shifts weekly. This change from day to night shifts must be so arranged that the women employed in the day shifts do not commence work in a night shift, or vice versa, until they have had a rest of at least 24 hours. The change from one shift to another must not fall between the hours of 8.30 p. m. and 5.30 a. m.

(c) The number of women employed in day and night shifts in sugar factories and in sugar refineries which are not in operation during the whole year must not exceed the average number employed during the last two periods of operation; and in those refineries which are in operation during the whole year they must not exceed the average number employed during the two preceding calendar years. Beginning with April 1, 1894, the number of women who can thus be employed in day and night shifts must not exceed two-thirds, and beginning with April 1, 1896, one-third of the number usually employed, as above indicated.

(d) The workrooms and passages, stairways, and other means of communication must be properly lighted after dark. The workrooms must have an adequate amount of air space, means of ventilation, and be heated in cold weather.

(e) Special suitably arranged and cleanly kept washing and dressing rooms, and rooms in which to wait during the intervals of rest, must be provided the working women. These rooms must be heated during cold weather. When the higher administrative authorities so order, appliances for the preparation of food and drink must be furnished the women. The women must not be permitted to remain in the workrooms during the 1 hour intermission, except while the industry is not being carried on.

(f) Separate water-closets, with separate entrances, must be provided for the two sexes, in a number proportionate to the number of employees. They, and their entrances, must be properly lighted after dark, and be so arranged that persons working in warm rooms may reach them without danger of taking cold.

(g) There must be conspicuously posted in every room in which women are employed at night a notice showing the work day, the times for beginning and ending work, and the intervals of rest. This notice must give separate lists of the women employed in the day and night shifts.

(h) There must also be posted in a conspicuous place, in the rooms indicated in the preceding paragraph, a notice giving the provisions of the present order.

FORGES AND ROLLING MILLS.—The employment of women and children in forges and rolling mills maintaining continuous fires (order of April 29, 1892) is subject to the following conditions:

1. Women must not be employed in the direct operations of the work, and children under 14 years of age must not be employed anywhere in metal, forge, and rolling mills.

2. The limitations of the code concerning the employment of boys from 14 to 16 years of age apply with the following modifications:

(a) Before they may be employed they must obtain certificates from a physician, duly authorized by the higher administrative authorities to issue such documents, that their bodily development is such that their employment will not be detrimental to their health. These certificates must be surrendered to the employer, who will treat them, as he must the labor pass books, according to the code.

(b) The labor period must not exceed 12 hours, inclusive of intervals of rest, or 10 hours exclusive of intervals of rest, and each shift must be broken by intervals of rest of a total duration of at least 1 hour. Intermissions of less than a quarter of an hour are not to be taken into account. If, however, the work in an establishment is of such a nature that the children in the course of the work are not subject to exacting labor, and have interruptions in their work affording adequate opportunities for rest, the higher administrative authorities may, upon request, and with the reservation that they can at any time revoke their action, provide that such interruptions of work, even though they are less than a quarter of an hour in duration each, may be taken into account in estimating the 1 hour intermission required by law. If the children are employed in more than 8-hour shifts there must be one interval of rest of at least half an hour, which must fall between the fourth and the eighth hours of work. In no case shall children be employed more than 60 hours in a week, exclusive of intervals of rest. When the work is carried on by means of day and night shifts the children must change from one to the other at least weekly. In such establishments the children must not be employed in more than 6 night shifts, or those falling between the hours 8.30 p. m. and 5.30 a. m., in a week.

(c) An interval of rest of at least 12 hours must be allowed between two shifts, and supplementary work must not be permitted during this time.

(d) On Sunday and holidays the children must not be employed between the hours of 6 a. m. and 6 p. m., nor must they be employed on Sunday during the hours before or after this period unless they

have enjoyed an uninterrupted interval of rest of at least 24 hours before the beginning or after the close of the labor shift.

(e) The children must not be employed during the intervals of rest of the adults.

3. The provisions of the code regarding the giving of notice to the authorities and the posting of notices by establishments employing children apply, as modified by the following regulations:

(a) The list of children employed, the posting of which is required, must be so prepared that those employed in each shift form separate lists.

(b) When regular intervals of rest are provided for, the times at which they begin and end must be given separately for each shift.

(c) When there are no regular rest periods, the notices need make no mention concerning them. Instead, a table must be annexed to the notice in which must be entered during or immediately after each labor shift the beginning and the end of the rest periods that were allowed. This table must give information concerning the last 14 labor shifts in the case of establishments employing the two-shift system, and the last 20 shifts in the case of establishments using the three-shift system.

(d) The foregoing table need not be prepared in the case of children who are employed exclusively at the trains (*Walzenstrasse*), and who are not employed in connection with furnaces in continuous operation, so far as these make at least 8 charges in 24 hours and are not recharged during the work at the trains.

(e) The higher administrative authorities may grant exemptions from the foregoing provisions regarding notices in certain special cases.

(f) A notice giving the provisions of the present order must be posted in rooms in which children are employed in the establishments to which this order relates.

TEXTILE FACTORIES.—In hackling and other preparing rooms in textile factories (order of April 29, 1892) children under 16 years of age must not be employed, nor their presence permitted in hackling rooms, or rooms in which machines are used for opening, loosening, grinding, dusting, greasing, or mixing of raw or used textile fibers, or waste, or rags. This prohibition does not apply to cards for wool or cotton. A copy of this order must be posted in all factories, having rooms as above enumerated, which employ children.

SPINNING WORKS.—In spinning works (order of December 8, 1893) which the local police authorities designate as desiring to take advantage of this order, the afternoon intermission prescribed by the code for children under 16 years of age may be omitted on Saturday, and days before holidays, when the following conditions are observed: When the interval of rest is omitted, the work period for the children must not be longer than 9½ hours, and must not extend beyond 5.30 p. m., or more than 4 hours after the midday rest. On these days the children must be permitted to take their afternoon meal while at work. If advantage is taken of this order, a copy of its provisions must be posted.

DAIRIES, ETC.—In dairies and establishments for sterilizing milk (order of July 17, 1895) the provision of the code which requires the work period of women to be between the hours of 5.30 a. m. and 8.30 p. m. is modified to the extent that the work period of women over 16

years of age may, from March 15 to October 15, fall between the hours 4 a. m. and 10 p. m.

PRESERVING FACTORIES.—In preserving factories (order of March 11, 1898) women over 16 years of age can, notwithstanding the restrictions concerning their employment contained in the code, be employed on those days other than Saturday, when manual labor is most required, under the following conditions:

1. The work period shall not exceed 13 hours, and must not fall between the hours 10 p. m. and 5.30 a. m.

2. When the normal work period is exceeded on more than 40 days during the industrial year, beginning May 1 and ending April 30, the hours of labor of the women so employed must be so regulated that the average duration of their daily labor does not exceed the normal work day fixed for them by the code.

3. A table must be posted in a conspicuous place in every establishment taking advantage of this order, upon which the director of the enterprise must enter on the day when overtime work is had the date and the number of hours worked by all women over 16 years of age in the establishment or that particular branch of the work concerned. A copy of the present order must also be conspicuously posted in all such places.

BRICK AND TILE WORKS.—In brick and tile works (order of October 18, 1898) it is prohibited to employ women or children under 16 years of age, (1) in the work of extracting or transporting the raw material, including the wet clay; (2) in molding bricks by hand, with the exception of roof tiles and porous bricks; (3) in work performed in furnaces, or in firing the latter, with the exception of charging and drawing drying furnaces (*Schmauchöfen*) which are open at the top; (4) in the transportation of molded bricks and tiles, including dried and baked bricks, so far as this work is done by wheelbarrows or other similar means, and use can not be made of a hard, even road or one with firm rails.

In works which are operated only during the period from the middle of May to the middle of November, the following exceptions are permitted to the provisions of the code restricting the employment of women and children from 14 to 16 years of age: (1) Children of the age specified may be employed every day on which work can be performed, except Saturday and the days before holidays, 11 instead of 10 hours. (2) In works which are conducted without employing a fixed plant, or where the fixed plant consists of but one furnace, women, and children from 14 to 16 years of age, may be employed 12 instead of 10 hours each day, except Saturday and days before holidays. In this case, however, these employees must be given three intervals of rest, one at noon of not less than 1 hour's duration, and one in the forenoon and one in the afternoon, of not less than one-half hour each. In no case shall more than 4 hours' work be performed without an intermission. (3) The work period of the children and women can, by derogation of the code, begin as early as 4.30 a. m. and continue as late as 9 p. m.

In those works which take advantage of the provisions regarding establishments which are operated only from the middle of May to the middle of November, a notice must be posted containing the provisions of this order regarding brick and tile works generally, and, instead of a copy of the general provisions of the code regarding

women and children, so much of the latter and so much of the provisions of this order as apply in the particular case. In all other works there must be posted a copy of the provisions of the code regarding the employment of women and children, and a copy of those provisions of this order which relate to brick and tile works generally.

MINES AND COKE WORKS.—The order of February 1, 1895, in relation to the employment of women and children in coal mines, and that of March 24, 1892, in relation to their employment in coal mines, lead and zinc mines, and coke works in Oppeln do not fall within the scope of the present work, which is intended in no case to reproduce the laws concerning labor in mines. Their provisions are, therefore, not reproduced.

SUNDAY LABOR.

The regulation anew of Sunday labor was one of the most important features of the labor law of June 1, 1891. Prior to its enactment the law concerning this subject was in a very unsatisfactory condition. The industrial code simply provided that employers could not require their employees to work on Sunday except in certain cases of great necessity. In other words, the meaning of this provision was that a contract calling for Sunday work could not be enforced. There was, however, nothing to prevent workingmen from voluntarily working, and Sunday work was consequently very prevalent.

The law of 1891 changed this. It set forth in detail the conditions under which work might be performed on Sunday, and made the infraction of any of its provisions punishable by a fine, which in some cases amounted to as much as 600 marks (\$142.80). The essential provisions of this law are reproduced in the following paragraphs.

The general principle of the act is that all labor on Sunday and holidays is prohibited in those cases specifically mentioned by the law. This prohibition applies to almost all categories of industrial and commercial work, except when a workingman labors alone or is aided only by the members of his family. It does not, however, apply to agriculture, forestry, fishing, and the liberal arts and professions, nor to concerts, theaters, cafés, restaurants, hotels, and the like, nor to transportation, except when it is a part of the work of an industrial or commercial establishment.

The law further provides that the prohibition of Sunday and holiday work may be extended by an imperial decree approved by the Bundesrat to industries other than those specified in the law. Such decrees must be placed before the Reichstag at its next session. No use has as yet been made of this power.

The determination of the days to be considered as legal holidays is made by the State government in taking account of the religious customs of the people. The cessation from labor must be for 24

continuous hours on each Sunday and holiday, 36 hours when a Sunday and holiday or two holidays succeed each other, and 48 hours at Christmas, Easter, and Pentecost. When a Sunday and holiday or two holidays succeed each other the rest period must always last until 6 p. m. of the second day, and as it must begin at midnight in establishments working only in daytime or in irregular shifts, in such cases it lasts 42 instead of 36 hours. In establishments working continuously night and day by shifts, it may for a holiday or Sunday begin not earlier than 6 p. m. of the day preceding nor later than 6 a. m. of the day itself, and last for 24 hours, in which case the whole establishment shuts down for that length of time.

In commercial establishments (*Handelsgewerbe*) no labor shall be performed on Christmas, Easter, or Pentecost. On other holidays and on Sunday employees may be allowed to work not more than 5 hours. Power, however, is given to the local authorities to limit still further or even to suppress this privilege.

To this general prohibition of commercial work on Sunday there are a number of exceptions. During those periods of the year when trade is unusually active, as the 4 weeks prior to Christmas and certain times when the people from the rural districts come to the cities to make their purchases, the police authorities can permit stores to remain open for as many as 10 hours on Sunday and holidays. The exception made in the case of persons working alone or only aided by members of their families in industrial work does not apply to commercial establishments. The prosecution of business by shops conducted in this way or by peddlers on Sunday is equally prohibited with that of other commercial establishments.

The impracticability of attempting to restrict all Sunday work, no matter what its nature or circumstances under which it must be performed within the limits described above, has necessarily been recognized by the German Parliament. The law, therefore, provides in detail the cases in which these restrictions shall not apply. These exceptions are in part enumerated in the law itself and in part are left to the Bundesrat or other governmental authorities to determine.

The following classes of work are enumerated by the law as exempt from the prohibition of Sunday and holiday work: (1) Work which public convenience requires shall be promptly executed; (2) the making of inventories required by law; (3) the guarding of plants, and the cleaning, repairing, and other work necessary for the maintenance of the equipment or to insure that the work shall not be interrupted, and which can not be performed on other days; (4) work indispensable in order to preserve materials employed or goods manufactured, as far as this work can not be done on week days.

In order to prevent an improper advantage being taken of these exceptions, it is provided that, whenever work of this kind is per-

formed, the employer must keep a record showing for each Sunday or holiday the number of persons employed, the duration of their labor, and the nature of the work performed. This record must be always open to the inspection of the factory inspectors or local authorities.

In those cases where workingmen have been employed, as provided in the third and fourth cases, for more than 3 hours, or have been prevented from attending divine worship, the employer must give to them 12 hours' rest every other Sunday between the hours of 6 a. m. and 6 p. m., or 36 hours' uninterrupted rest, including Sunday, every third week. The local authorities, however, can abrogate this provision where the workingmen are not prevented from attending divine service and enjoy a 24-hours' uninterrupted rest during the week.

By far the most important exceptions, however, are those which the law permits the Bundesrat or the superior or local authorities to accord. The Bundesrat can frame regulations permitting Sunday work in those industries which must be prosecuted without interruption, which can remain in operation only during certain seasons of the year, or which manufacture goods that are only in demand during certain months. Practically the only limitation to the power of the Bundesrat in this respect is that the regulations must be general and apply to all establishments in the same industry. All such orders must be published in the official journal and must be placed before the Reichstag at its next session.

In pursuance of this power the Bundesrat on February 5, 1895, promulgated a very comprehensive order regulating the conditions under which Sunday and holiday work was permissible in a large number of industries. This order has been subsequently modified by other orders relating to particular industries. As thus amended the order now relates to all or certain designated branches of the following industries: (1) Mining and quarrying, the manufacture of iron and steel and other metals, and salt works; (2) stone and earthenware manufacture; (3) enameling, electroplating, and the installation of electrical machines and apparatus; (4) chemical industries; (5) forestry by-products, lighting materials, fats, oils, and varnish; (6) paper and leather; (7) food and food products, and (8) industries which are unusually active at certain times of the year, as confectioneries, toy factories, tailoring and shoemaking on a small scale, millinery, furrier's trade, straw hat factories, and the chemical cleaning and dyeing of wearing apparel. For particular classes of industries under these general groups there is indicated the specific character of the work permitted on Sunday and holidays, and the conditions under which such work is allowed. The order further provides that employees engaged on work accessory to the real work of establishments such as attending to the motive power, lighting plants, etc., must be allowed the minimum rest period

provided for by law. The prescribed rest indicated for employees whose work is permitted on Sunday by this order for single or successive holidays and Sundays must be granted without interruption, and must for the most part or wholly be between 6 p. m. of the preceding work day and 6 a. m. of the succeeding work day. Finally, the employer must post in a conspicuous place in the establishment a notice showing the general provisions of this order and that portion that relates particularly to the industry to which his establishment belongs.

The power of the superior administrative authorities to grant authorizations for Sunday work relates to those industries the operation of which is necessary to satisfy the daily needs of the public, or where the power used is irregular, as water flow and wind.

The local authorities can grant similar authorizations to particular establishments where such work is necessary to prevent great loss on account of an accident or other unforeseen circumstance. In these cases the authorization must be in writing, and a copy must be posted in the place of work where it can be easily seen by the employees. The authorities must also prepare a statement showing all the cases where this permission has been granted, the number of persons whose employment was permitted, the length of time worked, the reasons for granting the permission, etc.

Finally, it is important to note that not only were the existing laws of the individual States regarding Sunday work not repealed, except in so far as they were in opposition to the imperial law, but full freedom was left to the States to further restrict through legislation Sunday labor within their boundaries.

FACTORY AND WORKSHOP RULES.

The question of shop rules or regulations received considerable attention by those having charge of the framing of the law of 1891, and important provisions concerning it were incorporated in the law. Prior to the passage of this act great complaint was made by the employees that, not only were the regulations governing the conduct of work in each establishment framed by the employer in an arbitrary manner, but that owing to the fact that they were often not reduced to writing, the employees had no way of knowing exactly what the regulations were, nor when they would be changed.

To remedy this the law of June 1, 1891, provided that in every industrial establishment in which 20 or more persons were employed a set of shop rules or regulations should be prepared, and that these regulations, as far as they were not contrary to law, should constitute an integral part of the labor contract. These regulations must be dated, signed, and posted where they can easily be seen by the employees, within 4 weeks after the establishment begins operations. In addition,

a copy must be given to each employee upon his entering the service of the establishment. Special regulations can be prepared for particular branches of the work. The regulations do not enter into force until 2 weeks after they are posted.

Though the main purpose of this law is to make the conditions of labor certain and generally known, the law also specifies the essential points that must be covered by the regulations. They must contain provisions concerning the hours of beginning and stopping work and the intervals allowed adult employees for rest; the manner of fixing wages and the times of their payment; the notice required in terminating the labor contract and the grounds upon which it can be dispensed with; the kinds and amount of fines, the manner in which they are levied, and when they are money fines, the method of their collection and the purpose for which they are employed; and the disposition that will be made of money retained on account of the improper breaking of the labor contract.

The law limits the amount of fines that can be levied to not more than one-half the average daily earnings of the employee, except that, in cases relating to the punishment of acts of violence toward fellow-workers, serious transgressions against good morals, or against the orders of the establishment for insuring the safety of the establishment or for the enforcement of the regulations enacted for the carrying out of the provisions of the industrial code, the fines may equal the full amount of the average daily earnings. No fines or penalties can be imposed which are hurtful to the sense of honor or good morals of the employees. In all cases the proceeds from fines must be expended for the benefit of the employees of the establishment in which they are levied. This provision of course does not refer to compensation obtained by employers on account of damages sustained.

The fines levied must be entered in a register kept for that purpose. The entry must show the name of the person fined, the date, cause, and amount of the fine, and the register must be open at all times to the inspection of the proper authorities. The penalties must be fixed without delay and must be made known to the employee.

Causes for dismissal or giving up of work other than those specified in the factory regulations or in the law can not be agreed upon in the labor contract, nor can penalties other than those provided for in those regulations be imposed.

It will be observed from the foregoing that, with the exception of the matter of fines, the law merely fixes the points to be covered, but leaves the parties quite free in determining their exact nature. The law of 1891, however, contains a very important provision in its requirement that the workingmen shall be given an opportunity to be heard in the framing of the regulations or of supplements thereto. The law thus provides that before the regulations are promulgated the

adult workingmen of the establishment shall be given an opportunity to make known their wishes regarding them.

In a considerable number of the more important industrial establishments permanent workingmen's committees (*ständige Arbeiterausschüsse*) had been voluntarily created by the employers for the purpose of having a body which could represent the collective interests of employees. The law recognized the utility of these institutions, and provided that where they were in existence their advice should be taken in the formulation of the regulations. In their absence certain other workingmen's organizations, such as the committees for the management of the sick funds, when the majority of their members were elected from among the workingmen, could act in this capacity as the representatives of the employees.

If there is a permanent workingmen's committee, and its consent is obtained, provisions can be introduced in the regulations concerning the operation of factory institutions created for the benefit of the employees and the conduct of minors outside of the establishment.

Though the employers must thus afford their employees an opportunity to be heard in regard to the framing of the factory rules, they are not bound to conform to their wishes in any respect. Experience, however, has demonstrated that the opportunity to be heard is nevertheless a valuable one for both parties. Conditions that would lead to trouble are often foreseen and modified, and points of little moment to the employers, and yet objectionable to the employees, are frequently eliminated.

After considerable discussion it was decided that it would not be necessary for these rules to receive the approval of the Government. The only administrative control exercised is that copies of all rules must be filed in duplicate with the local authorities within 3 days after their promulgation, with the observations of the workingmen if made in writing or the report of the meeting at which they had expressed their opinion. If, however, the regulations do not conform to legal requirements, the authorities can order their modification.

Changes in regulations must be made in the form of supplements or in such a manner that a new set of rules replaces the old, and are subject to the same provisions and formalities as the original regulations.

INSPECTION OF FACTORIES.

The duty of creating a service for the inspection of factories and the enforcement of the law in relation to them is left to the individual States. Formerly each State was left free to determine whether the execution of the factory laws should be left to the ordinary police or local administrative authorities, or special officials should be appointed for that purpose. The law of 1891 changed this and made it obligatory upon the States to appoint special industrial councilors and inspectors

(*Gewerbeaufsichtsbeamten*). Each State thus possesses its own particular service, and fixes the powers and duties of its inspectors and their relation to the local police authorities. The general law of the Empire, however, provides that these officials shall have the right to enter and inspect all industrial establishments at any time, and the employers are bound to furnish them such statistical information as the Bundesrat or provincial authorities may require.

The inspectors must furnish annually to their governments reports setting forth the manner in which they have performed their duties. These reports must be transmitted in their entirety or in abstract to the Bundesrat and Reichstag. From the information contained in them the central government prepares and publishes an annual report under the title of *Amtliche Mittheilungen aus den Jahresberichten der Gewerbeaufsichtsbeamten*. A number of the individual States also publish the reports of their inspectors independently.

In addition to this regular service for the inspection of factories the accident insurance institutions can appoint special officers to oversee the observance of those provisions having for their object the prevention of accidents.

PAYMENT OF WAGES: TRUCK SYSTEM.

As in other countries, it has been found necessary in Germany to enact laws for the purpose of insuring that workingmen shall receive their wages in cash and at regular intervals of time. Provisions with this object in view were contained in nearly all of the earlier labor codes. The present law is contained in the act of June 1, 1891, and introduces important modifications in prior existing legislation.

Employers are required to reckon wages in the money of the Empire and to pay them in cash. Employees must not be charged with goods furnished them except under the following conditions: Food may be furnished at actual cost price; the use of land and dwellings may be permitted at the rental customary in the vicinity; fuel, light, regular board, medicine, and medical attendance, as well as tools and materials, may be supplied at their average cost price, and the proper deduction be made from wages on this account.

In the case of contract work, tools and materials may be furnished at more than their cost price provided that the price has been previously agreed upon and does not exceed that usually charged in the neighborhood. This higher price is permitted so that the workingmen will be prevented from selling the tools or materials to other parties at a profit.

In all cases the goods, etc., must be furnished directly by the employer and not through a third party, and this can only be done with the consent of the employees.

Payment of wages can not be made in restaurants or saloons without the permission of the lower administrative authorities. The money must be paid to the workingmen themselves and never to third parties for the satisfaction of debts, etc., except as provided by the law in respect to attachments.

If wages are paid otherwise than as above provided, the employees may nevertheless at any time demand their payment according to law, and any defense that may be interposed to the effect that something else has been given in lieu of wages will be held invalid. In this case, if any supplies received are still on hand, they must be turned over to the sick fund to which the employee belongs, and if there is no such fund to the local workingmen's relief fund designated by the communal authorities, and in the absence of such a fund, to the local charity fund. When payments have been made to third parties, they will be considered as null and void.

All contracts in violation of the above provisions are null and void. The same nullity attaches to all agreements between employers and employees regarding the purchase of necessities by the latter from certain stores, or regarding the application of the wages of the employees to any purpose other than their participation in institutions for improving their condition or that of their families. This, however, does not apply to deductions from wages which are authorized by law on account of the breaking of the labor contract, injury to goods, breaking of machinery, etc. Claims for goods furnished and credited in violation of this law can not be sued for by the creditor, nor can they be charged against the debtor, nor made good in any other way, no matter whether the claim is made directly or transferred to another party.

All the provisions regarding the payment of wages apply equally to members of families of employees, to managers, overseers, etc.

Deductions from wages can be made by employers to secure themselves against loss on account of a breach of the labor contract, or to enforce the payment of fines when they have been previously agreed upon, not in excess of one-fourth of the wages due, nor more than the average wages for one week. Agreements may, however, be made for larger deductions to secure employers against loss on account of the loss or destruction of materials.

In addition to these general provisions applicable to the whole Empire, the individual communes, or a union of communes, are authorized to enact regulations, for all or for specified industries, of the following character: (1) That wages must be paid at fixed intervals of time, which must not be longer than one month nor shorter than one week; (2) that wages earned by minors must be paid to the parents or guardians, or that they shall only be paid to the minors upon the written authorization of the parents or guardians, or upon the

acknowledgment by the latter of the receipt of the previous wages; (3) that the employers must report to the parents or guardians at certain intervals of time the amount of wages paid to minors.

The provisions regarding wage payments apply also to persons engaged in productive work outside the establishments of their employers even when such employees furnish their own raw or other materials.

ARBITRATION TRIBUNALS.

In the consideration of the laws relating to guilds, it will be remembered that one of the important functions of those bodies was the constitution of arbitration committees. The jurisdiction of these committees, however, is limited to the adjustment of disputes in which guild members are concerned. They, therefore, scarcely affect any but the handicraft trades, and play little or no part in the settlement of the more important strikes and difficulties affecting the large industrial establishments.

Independently of these bodies, various other kinds of arbitration tribunals had gradually arisen in different parts of the Empire. Some of these had been organized by the local authorities in virtue of a permission to do so given to them by a provision of the labor code of 1869, and continued in the law of July 17, 1878. Others were organized similar, in a number of respects, to the French councils of prudhommes. None of these were very efficient institutions, and the lack of uniformity in their character and methods of operation constituted a real disadvantage.

To remedy these evils a general arbitration law was enacted July 29, 1890. This law is not a radical measure. It does not provide for the obligatory creation of arbitration courts, but, instead, leaves the matter of their establishment to the initiative of the individual communes or provincial authorities. It, however, introduces the provision that if the communes do take action, the tribunal created must be of the character fixed by the law. The main purpose of the law is, therefore, to make more uniform the arbitration tribunals created by the communes, and to define more accurately their powers and modes of action. While this law is treated under the caption of arbitration tribunals, it really provides for a system of special courts for the decision of labor cases, much in the same manner as the ordinary civil courts. The principle of conciliation and arbitration, however, is given great prominence.

It is important to note that this law relates to the settlement of disputes only among a particular class of industrial workers, that covered by section 7 of the industrial code, or factory employees proper. In this class are included officials, superintendents, and technical experts whose annual earnings or wages do not exceed 2,000 marks (\$476). In

no case, however, does the law apply to the handicraft trades. Following is a summary of the provisions of this law:

Tribunals for the decision of industrial disputes between employers and their employees, as well as between employees of the same establishment (*Gewerbegerichte*), may be created in virtue of this law by the communes, unions of communes, or, in certain cases, by the provincial authorities. The creation of an arbitration court by a commune must be by an act of the communal council, in accordance with section 142 of the industrial code. This section provides that such action shall be taken only after the employers and employees affected have had an opportunity to express their opinion, and that the constitution of the court must receive the approval of the higher administrative authorities and be published in the customary way of making communal proclamations. The higher administrative authorities must make known their decision regarding the matter within 6 months. When their decision is adverse, the grounds for the disapproval must be given. Much the same provisions apply to the creation of arbitration courts by a union of communes.

When the employers and workingmen interested petition for the establishment of a tribunal, but the communal authorities fail to act, the provincial government (*Landes-Centralbehörde*) may provide for the creation of such a body.

An arbitration tribunal may be created for all or for only particular categories of industries of a district, and may be for a single commune, a part of a commune, or a union of communes. The law contains special provisions concerning the creation of arbitration courts for the industries of coal mining, salt manufacture, quarrying, etc., which will not be reproduced here. After a court is created, its jurisdiction may be extended by the provincial authorities, after the local authorities have first been heard.

When created, the jurisdiction of these tribunals as regards matters to be adjudicated extends to the following questions without regard to the value of the matter in dispute: (1) The making, continuance, or breaking of the labor contract, and the surrender of, or making of entries in, labor pass books or certificates; (2) claims on account of services rendered, or for indemnities arising out of such relations, and the payment of fines; (3) the calculation and charging of dues required of employees for the sick-insurance funds; and (4) claims of employees against one another when work was undertaken jointly under the same employer. The courts do not have jurisdiction regarding disputes in respect to fines agreed to be paid if, at the termination of the labor contract, the employee enters the service of another person, or enters into business for himself. The jurisdiction of the courts as regards the first three classes of disputes includes those between persons working for definite employers outside the establishments in industrial pro-

ductions and their employers, in so far as their work relates to the manipulation of raw or partly manufactured articles furnished by the employer. The purpose of this provision is to bring home workers under the operation of the law. The same is true of disputes between home workers when working as described under the fourth class of disputes given above. Disputes among home workers who furnish their own raw or partly manufactured materials may come under the jurisdiction of the courts if their special statutes so provide. In all cases the jurisdiction of an arbitration court excludes that of the ordinary civil courts.

Each arbitration tribunal must consist of a president (*Vorsitzer*), at least 1 deputy (*Stellvertreter*), and not less than 4 associates (*Beisitzer*). Where a tribunal is organized in a number of sections, a presiding officer may be designated for each one.

The president and deputy are elected by the local authorities for terms of not less than 1 year. Neither can be an employer or an employee, and their election must be approved by the higher administrative authorities of the district in which the court is situated. This provision, however, does not apply to State or communal officials who hold office by virtue of a State appointment or confirmation so long as they are incumbents of such offices.

The associates must be elected in equal number by the employers and employees voting by secret and direct ballot in separate assemblies. The term of office must be for not less than 1 nor more than 6 years, and members are reeligible. Only those persons shall be electors who have completed their twenty-fifth year, have been domiciled or employed at least 1 year within the territorial jurisdiction of the court, and are eligible for the office of constable or sheriff. If the jurisdiction of a court is limited to certain classes of industries, only the employers and employees in those industries may take part in the elections or be elected. Neither members of a guild having an arbitration committee, nor their employees, may take part in the constitution of a court under this law.

To be eligible for election as members of a court, persons must be 30 years of age and must have resided or worked in the district for at least the 2 preceding years. Persons are not eligible for election if they or their families have been recipients of public relief which has not been repaid, and if they are disqualified from holding the office of constable or sheriff.

The details of the method of holding elections are prescribed by acts of the local authorities. These may provide that specified industrial groups may each elect one or more associates. They may also specify to what extent home workers shall be eligible as electors or members of the courts.

Objections to the legality of an election must be made within 1

month to the higher administrative authorities. If the objection is sustained, the election must be declared void and a new election be held.

In cases where no elections are held, or where they have been repeatedly declared void after having been held, the higher administrative authorities may order that such elections be held by the local authorities where they should have been held by employers or employees, or may themselves appoint members where the election should have been held by the local authorities.

The office of associate is an honorary one, there being no salary attached to it. Acceptance may be refused only upon the same grounds that would justify a person refusing an unsalaried communal office. Where there are no legal provisions regarding the declination of communal offices, a person elected as an associate may decline to serve upon the same grounds that would justify him in declining the position of guardian.

Any person, however, who has been an associate for 6 years may decline to serve for the ensuing 6 years. In all cases the reasons for declining to serve must be put in writing, and will be acted upon by the local authorities.

Though they receive no salary, associates must be allowed a compensation for time lost and be reimbursed for traveling expenses incurred in attending sessions of the court. The amount to be so allowed is determined by local statutes, and can not be declined by the members.

If circumstances arise or become known which would make a member ineligible for election to the office, he must be removed by the higher administrative authorities, after an opportunity has been given to the interested parties to be heard. If a member is guilty of a gross violation of his duties, he may be removed by the provincial court (*Landgericht*) of the district. Proceedings in such cases are instituted by the state's attorney.

Before entering upon their duties the presidents and their deputies must take oath of office before an official designated by the higher administrative authorities, and the associates must take oath of office before the president of the tribunal.

Associates who, without sufficient excuse, do not attend the sessions of the court with promptness, or who in other ways fail to fulfill their obligations, may be sentenced by the president to the payment of a fine not exceeding 300 marks (\$71.40), in addition to such costs as may have been incurred. If a sufficient excuse is afterwards given, the fine may be partially or wholly remitted. An appeal from the action of the president in this matter may be taken to the provincial court of the district in which the arbitration court has its seat.

An arbitration tribunal when exercising its functions must consist of 3 members, including the president, unless otherwise provided by local statute, which may provide that in general or for certain classes

of disputes a larger number of associates must be called. In all cases there must be an equal number of employer and employee associates. A registrar's office must be created for each court.

The law contains detailed provisions concerning the method of procedure in the arbitration courts, which need not be here reproduced except in brief summary form. In general the rules governing procedure in the civil courts are followed, except in so far as they are expressly modified by the present law. Parties can not be represented by attorneys or persons making a business of court proceedings. The terms of the courts will be fixed by their presidents. Parties must be formally summoned by the registrar. When a complaint is entered upon the docket, the president must appoint the earliest possible time for its trial. On regular court days the parties to a dispute may voluntarily appear without having been previously summoned or a day of trial fixed. The filing of a complaint in such a case consists simply of a verbal statement. The complaint must be recorded if the matter remains in dispute. Except in certain special cases, proceedings must be public.

If the complainant fails to appear at the time of trial, judgment will be rendered against him in default, and the case dismissed if the defendant so requests. - If the defendant fails to appear, and the complainant makes a motion to that effect, the facts alleged in the bill of complaint will be considered as admitted, and so far as they justify the redress asked judgment will be rendered; otherwise the action will be dismissed. Parties against whom judgment by default has been rendered may within 3 days file a petition that it be set aside. This petition must be heard by the court, and if acted upon favorably the case will be restored to the status in which it was before judgment was rendered.

If the parties duly appear, the effort must first be made by the arbitration tribunal to effect an amicable settlement of the dispute. This attempt at conciliation may be renewed at any stage of the proceedings, and must be renewed at the close of the proceedings if both parties are present. If an agreement is reached, its terms must be recorded in the minutes, and be read to the parties. The minutes must state that the agreement has been read to the parties, and must record its approval by the parties, or any objections that were made to it.

If an amicable agreement is not reached, the action will go to trial. The president will conduct the proceedings. His aim must be to have the parties make a full declaration of all important facts, to indicate the evidence required to establish the claims made, and to make such orders as may be necessary. He may at any time order the personal appearance of the parties, and in the case of their failure to appear may impose a fine not exceeding 100 marks (\$23.80) in amount. Objection to this fine may be made according to the ordinary rules of civil procedure.

If the continuance of a case to another term is necessary, especially when this is required because necessary evidence can not be immediately obtained, the future term and the time for the taking of the evidence must be immediately designated.

Evidence must, as a rule, be taken before the arbitration tribunal. A record must be kept of all proceedings, which must be signed by the president and the registrar.

The judgment must be announced at the term during which the proceedings are terminated; or, if this can not be done, within 3 days at a specially appointed term. The judgment must show: (1) The members of the court who have participated in the trial of the cause; (2) the parties; (3) a brief summary of the matters in dispute and the important grounds for the decision, and (4) the terms of the judgment rendered and the amount of the costs as far as they can be immediately ascertained.

If the judgment requires the performance of an act, the party obligated may, at the request of the other party, be held to pay an indemnity as fixed by the court in case of its nonperformance within a specified time. In the assessing of costs the tribunal, when requested by the successful party, may in its judgment include an indemnity for the time lost by the successful party in his attendance at the trial. Decisions regarding the fixing of costs are final. Appeals from judgments regarding the matters in dispute, however, may be made to the district court when the amount involved exceeds the sum of 100 marks (\$23.80). Decisions are enforced according to the general rules contained in the law relating to civil procedure. The civil courts must render all assistance within their legal powers.

Careful provisions are made by the law that the prosecution of actions in the industrial courts shall be as inexpensive as possible. The law thus provides that only one fee shall be charged in each case, which shall be proportionate to the amount of the sum in dispute. Where this sum does not exceed 20 marks (\$4.76) the fee is 1 mark (\$0.24); where it is more than 20 marks (\$4.76), but not more than 50 marks (\$11.90), 1½ marks (\$0.36), and where the sum is more than 50 marks (\$11.90), but not more than 100 marks (\$23.80), 3 marks (\$0.71). Three marks (\$0.71) additional are charged for each additional 100 marks (\$23.80). In case judgment is acknowledged or rendered by default, or the case is withdrawn before actual trial, only half fees will be charged. If a conciliation is effected at any stage of the proceedings the fee will be remitted altogether. The constitution of each court also may provide for a lower scale of fees or their entire remission. The losing party is responsible for costs. They will be assessed according to the ordinary method in judicial proceedings, and their collection may be enforced in the same way as communal taxes.

In addition to sitting as formal courts for the adjudication of labor cases, the arbitration tribunals may act as boards of conciliation to adjust disputes affecting the relations between employers and their employees. In order to act in this capacity they must be formally requested to serve by both employers and employees. When the latter are more than 3 in number they may appoint delegates to represent them. Such delegates must be at least 25 years of age and in the possession of their full legal rights.

When sitting as a board of conciliation (*Einigungsamt*), the tribunal must consist of the president and 2 employer and 2 employee associates. The board, however, may be increased by the addition of an equal number of prudhommes (*Vertrauensmänner*) for employers and employees. This will be done when both parties request it and designate the names of the persons to be selected. None of the persons on the board must be interested in the dispute.

The board of conciliation, after hearing both parties or their delegates, must determine the points in dispute and the circumstances regarding them that must be taken into account in arriving at a decision. Any associate or prudhomme has the right to put questions through the president to the delegates and witnesses. After a clear understanding concerning the circumstances of the dispute is had, each party must be given an opportunity in a general discussion to express himself regarding the matters alleged by the other party or in the way of testimony by witnesses. This done, the effort to effect a conciliation will be made.

If a conciliation is arrived at its terms must be reduced to writing and signed by all the members of the board and the delegates of both parties. If a conciliation is not effected the board must render a decision covering all the points in dispute between the parties. This decision will be arrived at by a simple majority vote. If, as the result of this vote, it is found that all the employer associates and prudhommes voted one way and all the employee associates and prudhommes voted another, the president may withhold his vote and declare that a decision has not been reached.

When a decision is given it must be announced to the delegates of both parties, with the notice that they must declare within a specified time whether they will abide by the decision or not. At the expiration of the time specified the board must issue a public notice, signed by all the members of the board, containing the decision rendered and the declarations made by the parties regarding the same. If neither a conciliation nor a decision is obtained this fact must be published by the president of the board.

As in the case of councils of prudhommes in other countries, these bodies may be called upon by the State authorities or the officers of

the union of communes for which they are created to report upon industrial questions. For this purpose the tribunals may form special committees, which, if the questions to be considered interest both employers and employees, must be composed of equal numbers of employer and employee associates. The tribunals may also upon their own initiation make recommendations concerning labor matters.

The cost of creating and maintaining the labor courts, as far as they are not covered by receipts, must be defrayed by the communes or unions of communes in which they are located.

Provision is finally made for the settlement of labor disputes in districts in which labor courts, as provided by this law, are not created. In such districts the chief officer of the communes (*Bürgermeister, Schultheiss, Ortsvorsteher, etc.*) is empowered to hear disputes in relation to the making, continuance in, or breaking of the relations between employers and employees, or in relation to the dues required of employees for insurance against sickness.

The parties to a dispute must be given an opportunity to make known their contentions and to introduce evidence. If a conciliation is arrived at its terms must be reduced to writing and be signed by the parties and the communal authority. The decision of the latter must be in writing and may be immediately enforced, if an appeal is not taken within 10 days to the ordinary courts by the local police authorities.

The chief officer of a commune may delegate the duty of deciding labor disputes as above described to a special officer. Instead of leaving this matter to the communes, the provincial authorities may provide for a general conciliation board for the adjustment of disputes within their districts.

LABOR COMMISSION.

Efforts for the establishment of a bureau of labor statistics after the American model were made in Germany as far back as 1872. Unwilling to create a permanent bureau, the central government has, however, created by decree a commission to collect information in relation to labor. This commission (*Kommission für Arbeiterstatistik*) was definitely organized April 1, 1892. It is composed of a president appointed by the chancellor of the Empire, 6 members chosen by the Bundesrat, 7 by the Reichstag, and 1 by the chancellor from among the statistical officers of the Empire.

The work of the commission is declared to be to give its advice, on the request of the Bundesrat or chancellor, concerning proposed statistical works and their execution and results, and to submit to the chancellor propositions for the carrying out of such inquiries. It will be seen from this description of the character of the commission that it may be said to occupy a medium position between industrial com-

missions and labor bureaus. It is a commission in form, but possesses to a considerable extent the permanency of a labor bureau. As regards its mode of action, it formulates inquiries and considers the results obtained, but the information gathered is compiled and prepared for publication by the imperial statistical bureau.

Thus far it has issued 10 or more volumes of reports giving the results of its investigations. They relate to the conditions of labor in various industries, and have furnished the information upon which the Bundesrat has based a number of regulations promulgated by it for the regulation of labor in particular trades.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

IOWA.

Eighth Biennial Report of the Bureau of Labor Statistics for the State of Iowa, 1897-1898. W. E. O'Brien, Commissioner. 108 pp.

The following subjects are treated in this report: Letter of transmittal, introduction, and recommendations, 10 pages; cooperative railroading, 3 pages; manual training, 3 pages; labor organizations, 2 pages; industrial statistics, 45 pages; railroad statistics, 14 pages; strikes, 1 page; pearl-button industry, 27 pages.

COOPERATIVE RAILROADING.—This chapter relates to the progress made by the Illinois Central Railroad Company in its system of selling on the installment plan shares of stock to employees.

MANUAL TRAINING.—This chapter consists of extracts from the report of the instructor of manual training in the schools of West Des Moines, giving an outline of the courses of study and system of instruction, and a brief account of manual training in the public schools of Mason City.

LABOR ORGANIZATIONS.—Brief mention is made of the general condition of labor organizations in the State.

INDUSTRIAL STATISTICS.—Tables are given showing the returns, by counties and industries, of the various individuals, companies, firms, and corporations in the State employing 5 or more persons each, such establishments being required by law to make returns. The statistics presented show the number of male and female employees, the number of apprentices, the total yearly wages paid, and the number of weeks in operation for 1,311 establishments in 1897 and 1,625 establishments in 1898. The following is a recapitulation of the returns for the entire State for the years 1896, 1897, and 1898:

STATISTICS OF ESTABLISHMENTS EMPLOYING 5 OR MORE PERSONS, 1896, 1897, AND 1898.

Items.	1896.	1897.	1898.
Establishments reporting	1,752	1,311	1,625
Total employees:			
Males.....	40,854	40,127	45,006
Females.....	7,732	7,696	9,800
Apprentices.....	687	532	623
Aggregate wages paid.....	\$17,809,622	\$17,656,724	\$19,623,892
Average weeks in operation:			
Full time with full force.....	40	44	45
Short time with reduced force.....	8	5	4
Weeks during which business was suspended.....	4	3	3

The above figures show a general improvement in business activity in the State during 1898 as compared with the preceding years.

RAILROAD STATISTICS.—Tables are given showing, by groups of occupations, for the years 1897 and 1898, the number of officials and other employees in the service of the railroad companies, and their total yearly and average daily earnings as obtained from the reports of the railroad commissioners. During 1897, 26,690 persons were employed by the railroads in the State, of whom 118 were general officers. In 1898 there were 30,009 persons employed, of whom 119 were general officers.

STRIKES.—In 1897, 18 strikes were reported, involving 1,191 persons and resulting in a wage loss of \$49,344. The average duration of the strikes was 13 days. Sixteen of these strikes were due to wage disputes. In 1898, 11 strikes were reported, involving 739 persons, and resulting in a wage loss of \$63,540. They lasted an average of 18 days, and were all due to wage disputes.

THE PEARL-BUTTON INDUSTRY.—This chapter consists mainly of an extract from a report of the United States Fish Commission regarding the pearl-button industry.

VIRGINIA.

First Annual Report of the Bureau of Labor and Industrial Statistics of the State of Virginia, for the Years 1898 and 1899. Archer P. Montague, Commissioner. xi, 420 pp.

The law^a creating the present bureau was approved March 3, 1898, and as this report was presented to the governor September 1, 1899, the work of the bureau for the two years is given in one report. The commissioner of labor has power under the law to require the furnishing of information for the use of the bureau.

The present report relates to the following subjects: Letter of transmittal, introduction, etc., 8 pages; agricultural and county statistics, 133 pages; principal cities, 14 pages; manufactures, 207 pages; penal institutions, reformatories, etc., 5 pages; organized labor, 7 pages; steam and electric railway employees, 11 pages; coal mines, 3 pages; newspapers, 2 pages; laws and court decisions relating to labor, 30 pages; recommendations, 4 pages.

AGRICULTURAL AND COUNTY STATISTICS.—In this chapter a description is given of each county, showing among other things the character of the land surface and soil, water courses, per cent of land under cultivation, character of products, wages, etc., and statistical tables showing crop products, prices, and cost of production, and the assessed valuation of real and personal property in 1898.

^a For a copy of this law see Bulletin No. 18, pages 778, 779.

PRINCIPAL CITIES.—An account is given of the location, transportation facilities, chief industries, schools, churches, etc., of each of the 15 principal cities of the State.

MANUFACTURES.—The statistics presented embrace chiefly comparative data for the years 1896 and 1897 regarding capital invested, stock used, goods made, persons employed, wages paid, proportion of business done, days in operation, etc.

The following summary of manufactures is given in the report:

Of the 1,182 blank forms sent to the operators of manufacturing plants, 690 were returned. Of these, 394 were tabulated, and the remaining 296 were found to be insufficient for use, either in consequence of the meager data contained therein, or the fact that certain of the establishments were not in active operation during the period covered. These untabulated reports represented an aggregate capital invested in business of \$374,640.

Of the 394 tabulated reports, 109 were from incorporated companies and 285 from private firms. The aggregate capital invested in business amounted to \$22,691,799.75, and the total value of all goods manufactured during the year 1897 was \$22,872,659.09. The total number of days worked in 1896 and 1897 were 86,501 and 94,262, respectively. The total amount paid in wages in the mechanical departments in 1896 was \$5,039,673.31; in 1897 it was \$6,406,528.42, or an increase of \$1,366,855.11. The total amount paid for rent was \$111,576.31; for taxes, \$149,514.86, and for insurance, \$143,072.25, a total of \$404,163.42. The average amount paid for office help per month was \$78,379.64, or \$940,555.44 per year. This office help included 466 managers and foremen, 241 salesmen and 4 salesladies, 167 male and 11 female bookkeepers, 191 male and 11 female clerks, and 29 male and 19 female stenographers.

ORGANIZED LABOR.—The following table gives some of the important facts reported by labor organizations in the State:

HOURS OF LABOR AND AVERAGE DAILY WAGES OF MEMBERS OF LABOR ORGANIZATIONS, AND AVERAGE DAYS WORKED DURING 1898, BY OCCUPATIONS.

Occupations.	Unions reporting.	Membership.	Hours of labor per day.	Average daily wages.	Average days worked during 1898.
Barbers.....	1	7	12	\$1.67	316
Blacksmiths.....	1	31	9	2.35	283
Boiler makers and shipbuilders.....	1	124	10	2.62	306
Brick masons.....	1	40	9	4.00	(a)
Car builders, railway.....	1	61	10	1.60	275
Cigar makers.....	2	126	8	1.73	260
Engineers, railway.....	2	194	12	4.35	360
Firemen, railway.....	7	161	11	1.91	320
Machinists.....	5	864	10	2.38	295
Molders.....	2	130	9	2.57	230
Painters and decorators.....	1	35	9	2.50	223
Plumbers, gas fitters, etc.....	1	86	9	2.75	(a)
Printers.....	2	(a)	9	2.25	230
Tailors.....	1	25	(a)	(a)	(a)
Tinners.....	1	35	9	2.00	306
Trainmen.....	1	67	10	1.85	365
Total.....	30	1,436			

a Not reported.

b Not including 2 printers' unions, membership not reported.

RAILWAY EMPLOYEES.—Statistics are given showing the number of persons employed, days worked, and wages paid by each of the 25 principal steam railroads operating in the State, as reported by the railway commissioner. There was a total of 23,649 persons employed by these companies, exclusive of general officers, receiving during the year \$11,491,350.88 in salaries and wages, or \$1.61 per employee per day.

Returns from 14 electric railways were obtained directly by the bureau. The following table gives the total number of employees, average hours of labor, and wages per day as reported by the companies:

AVERAGE HOURS OF LABOR AND WAGES OF EMPLOYEES OF 14 ELECTRIC STREET RAILWAYS, BY OCCUPATIONS.

Occupations.	Em- ployees.	Hours of labor per day.	Wages per day.	Occupations.	Em- ployees.	Hours of labor per day.	Wages per day.
Electricians.....	20	11.4	\$2.18	Blacksmiths.....	7	10.4	\$1.79
Foremen.....	19	10.5	2.38	Painters.....	8	10.5	2.40
Motormen.....	267	11.5	1.57	Trackmen.....	70	10.0	1.05
Conductors.....	247	11.0	1.50	Track rollers.....	8	10.5	1.08
Engineers.....	32	11.0	2.20	Laborers.....	63	10.2	.99
Firemen.....	34	11.1	1.34	Coal passers.....	10	10.5	1.03
Machinists.....	12	11.0	2.23				
Woodworkers.....	7	10.4	1.90	Total.....	804	.....	.....

COAL MINES.—This chapter contains a brief account of the coal mining industry in the State and statistics of coal production in 1896 and 1897.

NEWSPAPERS.—Statistics are given showing the hours of labor and daily wages of employees in each of 11 newspaper offices in the State.

THIRTEENTH REPORT ON THE ANNUAL STATISTICS OF MANUFACTURES IN MASSACHUSETTS.

The Annual Statistics of Manufactures, 1898. Thirteenth Report. xxvii, 311 pp. (Issued by the Bureau of Statistics of Labor, Horace G. Wadlin, Chief.)

The present report contains, in addition to the statistics of manufactures regularly presented, a monograph on the history and present condition of the textile industries. The contents of this report are arranged as follows: Statistics of manufactures, 111 pages; selected industry presentations, 43 pages; analysis, 55 pages; the textile industries, 51 pages; industrial chronology, 47 pages.

MANUFACTURES.—The statistics presented are mainly based upon the returns made for 1897 and 1898 by 4,701 identical establishments representing 80 industries in the State. No attempt was made to include all the manufacturing establishments in the State, but a sufficient number of leading typical establishments are given to show the general trend of industrial progress.

The 4,701 establishments considered were conducted, in 1898, by 3,464 private firms and 1,172 corporations, a decrease of 1.28 per cent in the number of private firms and an increase of 2.63 per cent in the number of corporations as compared with 1897. There was likewise a decrease in the number of partners from 5,572 in 1897 to 5,424 in 1898, and an increase in the number of stockholders from 46,407 in 1897 to 46,872 in 1898. The average number of partners to a private firm in 1898 was 1.57 and the average number of stockholders to a corporation was 39.95. The private firms and corporations enumerated were managed by 52,251 persons in 1898, of whom 5,424, or 10.38 per cent, were partners and 46,827, or 89.62 per cent, were stockholders.

The following tables show the aggregate capital invested, the value of goods made and work done, the value of stock used, and the wages paid during the years 1897 and 1898 for each of the 9 leading industries, for the remaining 71 industries collectively, and for all of the 4,701 identical establishments:

CAPITAL INVESTED AND GOODS MADE AND WORK DONE IN 80 INDUSTRIES, 1897 AND 1898.

Industries.	Estab-lish-ments.	Capital invested.			Goods made and work done.		
		1897.	1898.	Per cent of increase.	1897.	1898.	Per cent of increase.
Boots and shoes	644	\$23,200,068	\$22,414,665	α 3.39	\$104,042,441	\$107,188,460	3.02
Carpetings	12	6,784,921	6,582,652	α 2.98	6,364,709	6,016,943	α 5.46
Cotton goods	169	113,437,432	112,702,330	α .65	88,272,454	88,374,733	1.12
Leather	95	6,231,541	6,533,029	4.84	19,317,480	19,647,769	1.71
Machines and machin-ery	359	32,677,927	32,686,813	.03	26,979,408	28,964,913	7.36
Metals and metallic goods	380	17,367,796	17,191,783	α 1.01	21,702,203	23,328,223	7.49
Paper and paper goods	80	20,546,478	20,733,967	.91	18,131,485	20,104,555	10.88
Woolen goods	142	27,792,875	26,930,024	α 3.10	29,622,054	31,633,903	6.79
Worsted goods	35	16,802,284	17,166,388	2.17	24,694,793	25,818,780	4.55
Other industries	2,785	148,448,785	150,432,302	1.34	273,441,315	289,793,264	5.98
Total	4,701	413,290,097	413,373,953	.02	612,568,342	640,871,843	4.62

α Decrease.

STOCK USED AND WAGES PAID IN 80 INDUSTRIES, 1897 AND 1898.

Industries.	Estab-lish-ments.	Stock used.			Wages paid.		
		1897.	1898.	Per cent of increase.	1897.	1898.	Per cent of increase.
Boots and shoes	644	\$65,182,608	\$67,386,674	3.38	\$23,560,417	\$23,904,714	1.46
Carpetings	12	3,898,404	3,638,475	α 6.67	1,605,379	1,431,921	α 10.80
Cotton goods	169	50,857,806	47,294,087	α 7.01	27,193,335	26,294,240	α 3.31
Leather	95	14,532,557	14,929,168	2.73	2,679,496	2,640,868	α 1.44
Machines and machin-ery	359	9,276,096	10,142,326	9.34	9,505,410	10,068,181	5.92
Metals and metallic goods	380	9,845,655	10,734,998	9.03	6,634,101	6,842,531	3.14
Paper and paper goods	80	10,175,492	11,166,843	9.74	3,493,786	3,719,611	6.46
Woolen goods	142	17,415,255	19,184,735	10.16	7,052,842	7,205,613	2.17
Worsted goods	35	15,070,871	15,923,830	5.66	4,655,439	4,789,876	2.89
Other industries	2,785	158,060,200	162,445,281	2.77	51,606,233	53,314,548	3.31
Total	4,701	354,314,944	362,846,417	2.41	137,986,438	140,212,103	1.61

α Decrease.

The above tables show that in the 4,701 establishments, taken as a whole, there was an increase in each of the four items, namely, capital invested, goods made, stock used, and wages paid. Of the 9 leading industries, 3 show an increase in each of these items, 5 show an increase in only part of the items, while 1, carpetings, shows a decrease in each of the four items.

A comparison of the increase or decrease of the total production each year since 1886, as shown by the present and former reports, is given in the following table:

INCREASE OR DECREASE IN VALUE OF GOODS MADE AND WORK DONE, BY YEARS, 1886 TO 1898.

Years.	Number of establishments considered in each year compared.	Increase in value of goods made and work done in each year as compared with the previous year.		Years.	Number of establishments considered in each year compared.	Increase in value of goods made and work done in each year as compared with the previous year.	
		Amount.	Percent.			Amount.	Percent.
1886 and 1887...	1,027	\$13,919,859	5.29	1892 and 1893 ..	4,397	α \$51,793,852	α 8.10
1887 and 1888...	1,140	11,168,095	3.61	1893 and 1894 ..	4,093	α 56,793,448	α 10.27
1888 and 1889...	1,364	9,653,992	2.45	1894 and 1895 ..	3,629	43,018,021	9.18
1889 and 1890...	3,041	22,838,970	4.37	1895 and 1896 ..	4,609	α 31,376,727	α 5.61
1890 and 1891...	3,745	8,068,063	1.33	1896 and 1897 ..	4,695	16,996,553	3.04
1891 and 1892...	4,473	33,180,865	5.37	1897 and 1898 ..	4,701	28,303,501	4.62

α Decrease.

An examination of the above table shows that from 1886 to 1892, inclusive, there was an increase each year in the value of goods produced and work done in the industries considered; in 1893 and 1894 there was a decline; in 1895, an increase; in 1896, another decline; and in 1897 and 1898 increases are again noted.

The average number of employees and their average yearly earnings in 1897 and 1898 in the 4,701 identical establishments are shown in the table following. The persons included are wage-earners only, the officers, clerks, or other salaried persons not being considered.

AVERAGE NUMBER OF EMPLOYEES AND AVERAGE WAGES IN 80 INDUSTRIES, 1897 AND 1898.

Industries.	• Estab- lish- ments.	Average number of em- ployees.			Average yearly earnings.		
		1897.	1898.	Per cent of in- crease.	1897.	1898.	Per cent of in- crease.
Boots and shoes	644	50,055	51,897	3.68	\$470.69	\$460.62	a 2.14
Carpetings	12	4,623	4,208	a 9.09	347.26	340.69	a 1.89
Cotton goods	169	81,195	81,385	.23	334.91	323.08	a 3.53
Leather	95	5,597	5,465	a 2.36	478.74	483.23	.94
Machines and machinery	359	18,261	18,658	2.17	520.53	589.62	3.67
Metals and metallic goods	380	13,444	13,450	.04	493.46	508.74	3.10
Paper and paper goods	80	8,510	8,797	3.37	410.55	422.83	2.99
Woolen goods	142	19,285	19,438	.79	365.72	370.70	1.36
Worsted goods	35	12,975	13,107	1.02	358.80	365.44	1.85
Other industries	2,785	112,833	116,269	3.05	457.37	458.54	.26
Total	4,701	326,778	332,669	1.80	422.26	421.48	a .18

a Decrease.

The average number of persons employed as wage earners in all of the establishments considered was 326,778 in 1897 and 332,669 in 1898, an increase of 5,891 persons, or 1.80 per cent. Seven of the 9 leading industries show an increase in 1898 as compared with 1897, the greatest relative increase being 3.68 per cent, in the boot and shoe industry. The carpetings industry shows the greatest relative decrease, or 9.09 per cent.

The average yearly earnings per individual employed in the 4,701 establishments was \$422.26 in 1897 and \$421.48 in 1898, a decrease of \$0.78, or 0.18 per cent. Six of the 9 leading industries show an increase and 3 a decrease in this average. The greatest relative increase was 3.67 per cent, in the machines and machinery industry, and the greatest relative decrease was 3.53 per cent, in the cotton goods industry.

The following table shows, for the 80 industries, the percentage of males and females of the whole number employed at each specified weekly rate of wages.

PER CENT OF MALES AND FEMALES OF THE WHOLE NUMBER EMPLOYED AT SPECIFIED WEEKLY WAGES IN 80 INDUSTRIES, 1897 AND 1898.

Weekly wages.	1897.		1898.	
	Males.	Females.	Males.	Females.
Under \$5.....	38.90	61.10	38.60	61.40
\$5 or under \$6.....	37.44	62.56	39.33	60.67
\$6 or under \$7.....	47.72	52.28	48.32	51.68
\$7 or under \$8.....	57.53	42.47	58.21	41.79
\$8 or under \$9.....	64.92	35.08	67.22	32.78
\$9 or under \$10.....	81.47	18.53	82.35	17.65
\$10 or under \$12.....	86.83	13.17	86.69	13.31
\$12 or under \$15.....	94.01	5.99	93.30	6.70
\$15 or under \$20.....	97.41	2.59	97.65	2.35
\$20 or over.....	98.64	1.36	98.86	1.14
Total.....	66.40	33.60	66.31	33.69

Of the whole number of persons reported as receiving less than \$5 per week in 1898, 38.60 per cent were males and 61.40 per cent were females. The proportion of males in each class increased as the wages advanced, while the proportion of females decreased correspondingly. The proportion of females in 1898 in the 4,701 establishments shows a very slight increase over the proportion in 1897.

The fluctuations in the different wage classes are shown in the following table, the total number of males, females, and both sexes, respectively, being each considered as representing 100 per cent and the number of employees in each class constituting parts of this aggregate:

PER CENT OF THE TOTAL MALES AND FEMALES AT SPECIFIED WEEKLY WAGES IN 80 INDUSTRIES, 1897 AND 1898.

Weekly wages.	1897.			1898.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5.....	8.52	26.45	14.54	9.12	28.57	15.67
\$5 or under \$6.....	5.71	18.88	10.14	6.18	18.78	10.42
\$6 or under \$7.....	8.64	18.70	12.02	8.62	18.16	11.84
\$7 or under \$8.....	9.37	13.67	10.81	9.55	13.49	10.88
\$8 or under \$9.....	9.12	9.74	9.33	9.10	8.74	8.98
\$9 or under \$10.....	12.18	5.48	9.93	12.22	5.15	9.84
\$10 or under \$12.....	14.20	4.26	10.86	14.01	4.24	10.72
\$12 or under \$15.....	16.60	2.09	11.73	15.78	2.23	11.22
\$15 or under \$20.....	11.88	.63	8.10	11.73	.56	7.96
\$20 or over.....	8.78	.10	2.54	8.69	.08	2.47
Total.....	100.00	100.00	100.00	100.00	100.00	100.00

The class in which the proportion of the sexes was about the same each year is that receiving \$8 or under \$9 per week. The percentages of males in this class in 1897 and 1898 were 9.12 and 9.10, respectively, and of females, 9.74 and 8.74, respectively. The number of female employees, as expressed in percentages, shows an increase in 1898 as compared with 1897 in only two classes, namely, under \$5, and \$12 or under \$15, and a decrease in each of the other classes.

The per cent of business done of the maximum capacity of the establishments and the number of days in operation in 1897 and 1898 are shown in the following table:

PER CENT OF BUSINESS DONE AND AVERAGE DAYS IN OPERATION IN 80 INDUSTRIES,
1897 AND 1898.

[The per cent of business done represents the relation of the actual production to the greatest amount of goods that can be turned out with the present facilities, the latter being considered as 100 per cent.]

Industries.	Estab- lish- ments.	Per cent of busi- ness done of maximum capac- ity of establishments.		Average days in operation.	
		1897.	1898.	1897.	1898.
Boots and shoes	644	61.30	59.88	285.88	286.80
Carpetings	12	67.33	66.83	243.78	223.08
Cotton goods	169	81.83	84.42	286.50	293.08
Leather	95	62.97	61.43	291.83	290.44
Machines and machinery	359	55.11	57.77	275.71	288.71
Metals and metallic goods	380	57.65	59.14	278.17	280.79
Paper and paper goods	80	75.70	81.23	271.18	281.95
Woolen goods	142	78.32	75.77	285.45	279.58
Worsted goods	35	82.63	76.74	293.58	266.50
Other industries	2,785	58.52	59.25	284.32	287.29
Total	4,701	60.60	61.19	284.05	286.28

The average proportion of business done of the total capacity in all the establishments in 1897 is represented by 60.60 per cent and in 1898 by 61.19 per cent, a slight advance in the latter year. Five of the 9 leading industries show a decrease and 4 an increase in this proportion.

The average number of days in operation in all establishments considered was 284.05 in 1897 and 286.28 in 1898, a slight increase during the latter year. Five of the 9 leading industries show an increase in the average days worked in 1898 and 4 a decrease.

The next table presents, for the year 1898, the actual product per \$1,000 of capital invested in each of the 9 leading industries, the average product per employee, the percentage of industry product paid in wages, and the percentage devoted to other expenses.

INDUSTRY PRODUCT, WAGES, AND PROFIT AND EXPENSES IN 9 SPECIFIED INDUSTRIES, 1898.

[By "industry product" is meant the actual result of the productive forces in the industry; that is, the added value created above the value of stock and materials consumed. The values presented in this table under the designation "industry product" are obtained by deducting from the total value of goods made and work done in each industry the value of stock used, the difference being added value or actual product due to the industry. In the division of the proceeds of each industry, one part of this industry product is paid to the labor force in the form of wages, this being labor's share of the product. The balance constitutes a fund from which are paid freights, insurance, interest on loans (credit capital), interest on stock (fixed or invested capital), rents, commissions, salaries, etc.; in fact, all expenses other than those for stock and wages. The remainder, if any, is the profit of the employer. The entire balance of the industry product remaining after the deduction of the amount paid in wages becomes a "profit and minor expense fund," and is thus designated in the table. Of course it will be understood that the term "minor expense" is relative. The expenses paid out of this balance are in themselves considerable in amount, and are only to be classed as minor in comparison with the generally larger amounts expended for materials (stock) and wages.]

Industries.	Industry product.	Wages.	Profit and minor expense fund.	Industry product.		Percent of industry product—	
				Per \$1,000 of capital.	Average per employee.	Paid in wages.	Devoted to profit and minor expenses.
Boots and shoes	\$39,801,786	\$23,904,714	\$15,897,072	\$1,775.70	\$766.94	60.06	39.94
Carpetings	2,378,468	1,431,921	946,547	361.32	565.90	60.20	39.80
Cotton goods	41,080,646	26,294,240	14,786,406	364.51	504.77	64.01	35.99
Leather	4,718,601	2,640,868	2,077,733	722.27	863.42	55.97	44.03
Machines and machinery	18,822,587	10,068,181	8,754,406	575.85	1,006.82	53.49	46.51
Metals and metallic goods	12,593,225	6,842,531	5,750,694	732.51	936.30	54.34	45.66
Paper and paper goods	8,938,012	3,719,611	5,218,401	431.08	1,016.03	41.62	58.38
Woolen goods	12,449,168	7,205,613	5,243,555	462.28	640.46	57.88	42.12
Worsted goods	9,894,950	4,789,876	5,105,074	576.41	754.94	48.41	51.59

The largest industry product per \$1,000 of capital invested is shown in the boot and shoe industry, namely, \$1,775.70, while the smallest, \$361.32, is found in the carpetings industry. When the percentage of industry product paid in wages is considered, that of cotton goods leads, with 64.01 per cent, and the paper goods industry ranks lowest, the percentage being 41.62.

THE TEXTILE INDUSTRIES.—This monograph contains a brief historical sketch of the introduction of textile manufacturing in Massachusetts and statistics showing the development and present condition of the industry. A comparative table is given showing the value of textile goods made in Massachusetts at the time of each National and State census from 1837 to 1898, the year 1837 indicating the first State census and the year 1898 a return of manufacturing statistics. Other tables are given showing the number of establishments engaged and the value of goods made in each branch of the textile industry in 1895 and 1898, and the value of goods made in 1895 and 1898 by cities and towns and in 1898 by selected cities.

In presenting the textile statistics for 1898 a new system of classification of textile branches was adopted, in order to make the figures

comparable with those of the United States census. The following table shows the value of goods made in Massachusetts in 1895 and 1898 in each branch of the textile industry on the basis of the classification adopted in 1898:

VALUE OF GOODS MADE IN TEXTILE INDUSTRIES, 1895 AND 1898.

Industries.	Value of goods made.		
	1895.	1898.	Per cent of increase.
Carpetings.....	\$6, 631, 659	\$5, 298, 216	a 20. 11
Cordage and twine.....	4, 937, 180	4, 917, 499	a .40
Cotton goods.....	95, 661, 548	89, 702, 330	a 6. 23
Flax, hemp, and jute goods.....	3, 064, 787	3, 451, 650	12. 62
Hosiery and knit goods.....	5, 367, 404	5, 183, 760	a 3. 42
Print works, dye works, and bleacheries.....	22, 409, 660	20, 531, 893	a 8. 38
Silk and silk goods.....	4, 043, 189	4, 629, 757	14. 51
Woolen goods.....	33, 087, 490	33, 784, 793	1. 96
Worsted goods.....	21, 761, 261	25, 926, 280	19. 14
Total.....	196, 964, 178	193, 376, 168	a 1. 82

a Decrease.

The above figures show the value of goods made in the purely textile branches, such nontextile industries as oil-cloth manufacturing, dyeing, bleaching, and cleansing of clothing, etc., which had been classed under textile branches in the census of 1895, having been omitted. It will also be noticed that the figures presented are only for the value of goods made, and not for work done.

It will be seen from the above table that there was a falling off of 1.82 per cent in the value of textile products in 1898 as compared with 1895. The decrease in value of products was 20.11 per cent in the carpetings industry, 8.38 per cent in print works, dye works, and bleacheries, 6.23 per cent in cotton goods, 3.42 per cent in hosiery and knit goods, and 0.40 per cent in cordage and twine. On the other hand, there was an increase in the value of goods made of 19.14 per cent in worsted goods, 14.51 per cent in silk and silk goods, 12.62 per cent in flax, hemp, and jute goods, and 1.96 per cent in woolen goods.

This monograph further contains statistics of exports and imports of textile materials and fabrics, the production of cotton and wool in various countries, the production and consumption of cotton in and exportation from the United States from 1791 to 1898, the number of spindles, looms, cards, and combs in use in the various States of the Union in 1896 and 1898, and the estimated number of spindles in operation in the various countries of the world during the commercial season ending 1898. This information was obtained mostly from official, but to some extent, also, from private, sources.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

DENMARK.

Danmarks Haandværk og Industri ifølge Tællingen den 25 Maj, 1897.
Udgivet af Statens Statistiske Bureau. 68*, 214 pp.

The present work of the Danish statistical bureau is based on census returns for May 25, 1897, of manufacturing industries and handicrafts. The main part of the report consists of a series of 13 tables containing the detailed results of the enumeration. These tables are preceded by a comprehensive analysis and by a reproduction of the schedules of inquiry used and instructions issued in the prosecution of the work of enumeration.

The inquiry included in its scope all the manufacturing establishments and the persons engaged in the same, both as employers and employees. The data are not shown for individual localities, but are grouped for Copenhagen, for other cities and towns collectively, for the rural districts, and for the whole of Denmark. In the industry classification the data are shown for 11 principal and 233 minor groups of industries. The statistical presentation shows, in various combinations, the number of establishments, the number having mechanical motive power, the character and amount of such power, the quantity and value of products in certain establishments having mechanical motive power, the persons occupied in all establishments according to the character of employment, the age, sex, conjugal condition, and birthplace of the wage workers, the number of wage workers engaged in home work, and persons occupied in manufacturing in prisons, hospitals, and asylums.

The enumeration disclosed the existence of 77,256 manufacturing establishments in Denmark on May 25, 1897, employing a total of 270,622 persons either as employers or employees. Following is a summary of the more important results of the enumeration:

Total establishments.....	77,256
Principal establishments.....	62,308
Accessory establishments.....	14,948
Establishments using mechanical motive power.....	7,139
Establishments using wind or water.....	3,134
Establishments using steam, gas, petroleum, hot air, or electricity.....	4,005

Total personnel	270,622
Proprietors, superintendents, and managers	78,031
Overseers, foremen, clerks, and salesmen	8,854
Messengers and other inferior salaried employees	7,129
Wage workers proper	176,608
Male wage workers	139,848
Female wage workers	36,760
Wage workers under 14 years of age	4,672

Of the 77,256 establishments enumerated 62,308 were conducted as the principal business of the owners, and 14,948 were conducted in connection with and accessory to some other manufacturing, commercial, or agricultural enterprise. Of the 270,622 persons engaged in manufacturing and handicraft occupations 78,031 were heads of establishments, either as proprietors, superintendents, or managers; 8,854 were overseers, foremen, clerks, and salesmen; 7,129 were messengers and other inferior salaried employees, and 176,608 were wage workers.

In the presentation regarding age, sex, conjugal condition, etc., only those persons were considered who are classed as wage workers (*Arbejdere*). The 176,608 wage workers enumerated were employed in 34,697 establishments, 42,559, or over one-half of the establishments, employing no wage workers proper. In the following table the establishments are grouped according to the number of wage workers employed, the number of persons and percentage of each class of occupations being given for each group:

PERSONS EMPLOYED IN MANUFACTURING ESTABLISHMENTS, BY OCCUPATIONS, AND NUMBER OF WAGE WORKERS TO AN ESTABLISHMENT, MAY 25, 1897.

Establishments employing—	Estab-lishments.	Proprietors, superintendents, and managers.		Overseers, foremen, clerks, and salesmen.		Messengers and other inferior salaried employees.		Wage workers.		Total persons employed.
		Num-ber.	Per cent of total persons employed.	Num-ber.	Per cent of total persons employed.	Num-ber.	Per cent of total persons employed.	Num-ber.	Per cent of total persons employed.	
No wage workers	42,559	12,293	96.7	209	0.5	364	0.8	.....	.....	42,866
1 wage worker	13,471	13,273	47.7	392	1.4	661	2.4	13,471	48.5	27,797
2 wage workers	7,817	7,819	81.7	476	1.9	729	3.0	15,634	63.4	24,658
3 wage workers	4,138	4,125	23.5	448	2.5	572	3.3	12,414	70.7	17,559
4 wage workers	2,360	2,425	19.1	385	3.0	452	3.6	9,440	74.3	12,702
5 wage workers	1,465	1,499	15.8	296	3.1	374	3.9	7,325	77.2	9,494
6 to 10 wage workers	2,835	3,042	11.6	1,103	4.2	1,000	3.8	21,073	80.4	26,218
11 to 20 wage workers	1,384	1,652	7.0	1,163	4.9	844	3.6	19,946	84.5	23,606
21 to 50 wage workers	802	1,113	3.9	1,562	5.6	724	2.6	24,662	87.9	28,061
51 to 100 wage workers	260	417	2.0	1,117	5.4	716	3.5	18,402	89.1	20,632
Over 100 wage workers	165	352	1.0	1,544	4.2	639	1.7	34,241	93.1	36,776
Administrative personnel of establishments conducted in common .....	.....	21	.....	159	.....	54	.....	.....	.....	234
Total	77,256	78,031	28.8	8,854	3.8	7,129	2.6	176,608	65.3	270,622

Of the establishments employing wage workers, the per cent of wage workers of the total persons employed increased steadily, while the per cent of heads of establishments diminished with the size of the establishment. The per cent of salaried employees likewise increased with the size of the establishment, but in establishments employing over 100 wage workers a decrease in this proportion is noticeable.

In the table following the establishments employing wage workers are grouped according to the number of wage workers employed, the number and per cent of establishments and of wage workers in each group being shown:

NUMBER AND PER CENT OF WAGE WORKERS IN ESTABLISHMENTS GROUPED ACCORDING TO NUMBER OF WAGE WORKERS EMPLOYED, MAY 25, 1897.

Establishments employing—	Establishments.		Wage workers.	
	Number.	Per cent of total.	Number.	Per cent of total.
1 to 5 wage workers.....	29,251	84.30	58,284	33.00
6 to 10 wage workers.....	2,835	8.17	21,073	11.93
11 to 20 wage workers.....	1,384	8.99	19,946	11.29
21 to 50 wage workers.....	802	2.31	24,662	13.97
51 to 100 wage workers.....	260	.75	18,402	10.42
Over 100 wage workers.....	165	.48	84,241	19.39
Total.....	34,697	100.00	176,608	100.00

It will be seen from the two preceding tables that establishments manufacturing on a small scale still largely predominate in Denmark. It is shown in the first place that 42,559 establishments employed no wage workers, consisting as a rule simply of a handicraftsman working on his own account. Of the 34,697 establishments employing wage workers, 29,251, or 84.30 per cent, employed from 1 to 5 each, and only 165, or 0.48 per cent, employed over 100 wage workers each. Of the wage workers enumerated 58,284, or 33 per cent, were employed in establishments having from 1 to 5 each, and 34,241, or 19.39 per cent, in establishments having over 100 wage workers each. Of the 165 establishments having over 100 wage workers each, 22 were State or communal institutions.

With regard to the 11 principal groups of industries, it appears that the group of furniture and building trades embraces the largest number of persons, namely, 63,208. Next in order were the groups of clothing and toilet articles with 55,419 persons, food products with 47,386 persons, and machinery, metals, and metallic goods with 38,801 persons. This is shown in the table following.

ESTABLISHMENTS AND PERSONS EMPLOYED, BY INDUSTRIES, MAY 25, 1897.

Industries.	Estab-lish-ments.	Persons employed.				
		Proprie-tors, su-perin-tendents, and man-agers.	Over-seers, fore-men, clerks, and sales-men.	Messen-gers and other inferior salaried em-ployees.	Wage workers.	Total.
Food products	11,301	11,237	2,910	2,722	30,517	47,386
Textiles	4,358	4,452	682	259	12,533	17,926
Clothing and toilet articles	23,557	23,907	1,090	1,531	28,291	55,419
Furniture and building trades	19,781	19,716	516	587	42,389	63,208
Wooden ware	4,896	4,839	310	299	8,119	13,567
Leather and leather goods	227	252	68	33	1,227	1,580
Glass and earthenware	1,757	1,828	855	140	13,700	16,023
Machinery, metals, and metallic goods	9,383	9,637	1,256	606	27,302	38,801
Chemical and technical industries	666	690	555	265	5,115	6,625
Paper and paper goods	82	105	170	92	2,057	2,424
Printing, publishing, etc	1,248	1,368	342	595	5,358	7,663
Total	77,256	78,031	8,854	7,129	176,608	270,622

The presentation regarding sex shows that of the 176,608 wage workers 139,848, or 79.2 per cent, were males, and 36,760, or 20.8 per cent, were females. The number of female wage workers exceeded the number of male wage workers in the textile and in the clothing industries, the percentages of the female of the total wage workers in those industries being 62.1 and 52.4, respectively. In the paper and paper goods group of industries the sexes were about equally divided. The proportion of females was smallest in the furniture and building trades group, being but 0.6 per cent of the total number of wage workers in that group of industries.

The age was reported in the case of 171,013 of the 176,608 wage workers enumerated. Of this number 4,672 were 10 and under 14 years of age, 26,555 were 14 and under 18 years of age, 29,495 were 18 and under 22 years of age, and 110,291 were 22 years of age or over. The following table shows, according to sex, the number and proportion of wage workers in each age period:

NUMBER AND SEX OF WAGE WORKERS, BY AGE PERIODS, MAY 25, 1897.

Age periods.	Males.		Females.		Total wage workers.
	Number.	Per cent of total reporting age.	Number.	Per cent of total reporting age.	
10 and under 14 years	3,820	2.8	852	2.5	4,672
14 and under 18 years	23,036	16.9	3,519	10.2	26,555
18 and under 22 years	21,611	15.8	7,894	23.0	29,495
22 years or over	88,227	64.5	22,064	64.3	110,291
Total reporting age	136,694	100.0	34,319	100.0	171,013
Not reporting age	3,154	.....	2,441	.....	5,595
Total wage workers	139,848	.....	36,760	.....	176,608

Of the children of 10 and under 14 years of age employed as wage workers, 3,820 were males and 852 were females. The proportion of

children of the total wage workers in any industry group was greatest in the paper and paper goods group, namely, 9.9 per cent, although by far the largest number of children were employed in the food-products group, or 2,409 out of a total of 4,672 children employed in all industries. The smallest proportion of children employed as wage workers, or 0.4 per cent, was in the furniture and building trades group of industries. Of 22,064 female wage workers 22 years of age or over, 8,722, or 39.5 per cent, were married.

With regard to home work, the enumeration shows that of the 176,608 wage workers 12,585 worked at their own homes. This home work was done largely by females, 9,786, or 26.6 per cent of all female wage workers, being thus employed. The following table shows by sex and age periods the number and per cent of wage workers employed at home work:

WAGE WORKERS EMPLOYED AT HOME WORK, BY SEX AND AGE PERIODS, MAY 25, 1897.

Age periods.	Males.			Females.		
	Total.	Employed at home.		Total.	Employed at home.	
		Num-ber.	Per cent.		Num-ber.	Per cent.
10 and under 14 years	3,820	8	0.2	852	125	14.7
14 and under 18 years	23,036	17	.1	3,519	143	4.1
18 and under 22 years	21,611	110	.5	7,884	531	6.7
22 years or over	88,227	2,505	2.8	22,064	6,827	30.9
Age not reported	3,154	159	5.0	2,441	2,160	88.5
Total wage workers.....	139,848	2,799	2.0	36,760	9,786	26.6

The population of Denmark at the time of this enumeration of manufacturing establishments was estimated to be 2,291,000. The number of wage workers over 10 years of age therefore constituted 7.7 per cent of the entire population.

There were 1,916 inmates of prisons, hospitals, asylums, etc., engaged in manufacturing, of whom 1,447 were males and 469 were females.

With regard to the motive power the enumeration shows that of the 77,256 establishments considered 3,134 were operated by wind or water power, and 4,005 by steam, gas, petroleum, hot air, or electricity, the power in 270 of the latter being supplemented either regularly or occasionally by wind or water power. Establishments having mechanical motive power employed 76,500, or 43.3 per cent, of the wage workers enumerated.

FRANCE.

Statistique des Grèves et des Recours à la Conciliation et à l'Arbitrage Survenus Pendant l'Année 1898. Office du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. xviii, 334 pp.

The present report for 1898 is one of a series of annual publications on strikes, and conciliation and arbitration, issued by the French

bureau of labor. The information is presented in form similar to the the preceding annual reports.

STRIKES.—The year 1898 was marked by a decided increase in the number of strikers, although the number of strikes was but slightly greater than in 1897. The report shows that in 1898 there were 368 strikes affecting 1,967 establishments and participated in by 82,065 strikers. Of the latter 71,348 were men, 7,955 were women, and 2,762 were children. These strikes resulted in a total loss of 1,216,306 working days, in which are included 155,934 days lost by 5,900 persons who were not strikers, but who were thrown out of employment as a result of strikes. The average time lost per striker was 15 days.

In the preceding year, 1897, there were 356 strikes, affecting 2,568 establishments and involving 68,875 strikers, resulting in a loss of 780,944 working days or 10½ days per striker. The large number of strikers in 1898 was due mainly to a strike of excavators in Paris followed by a general strike in the building trades, which together involved over one-half of all the strikers reported.

As regards the results of the disputes in 1898, 75 strikes, involving 10,594 strikers, were successful; 123 strikes, involving 32,546 strikers, were partly successful, and 170 strikes, involving 38,925 strikers, failed. While the proportion of successful strikes was slightly greater than in 1897, the proportion of strikers who succeeded was considerably smaller. This was due to the failure of the above-mentioned general strike in the building trades.

The following table shows the per cent of strikes of total strikes and the per cent of strikers of total strikers that succeeded, succeeded partly, and failed, as compared with similar data for 1897:

RESULTS OF STRIKES, 1897 AND 1898.

Result of strikes.	Strikes.		Strikers.	
	1897.	1898.	1897.	1898.
Succeeded	19.10	20.38	28.80	12.91
Succeeded partly	34.27	33.42	41.77	39.66
Failed	46.63	46.20	29.43	47.43
Total.....	100.00	100.00	100.00	100.00

In 211 of the 368 strikes reported, the participants were either all or in part members of trade unions. Six labor organizations were created while strikes were in progress, and in two strikes, one of which failed, and the other was compromised, the employees were obliged by their employers to leave their labor organizations. In 113 strikes the employers were organized. Regular aid was given by labor organizations for the relief of strikers in 32 strikes, and in the case of 41 strikes the intervention of labor organizations was accepted by employers.

Of the 368 strikes reported 286 involved but 1 establishment each,

26 involved from 2 to 5 establishments, 27 from 6 to 10 establishments, 17 from 11 to 25 establishments, 4 from 26 to 50 establishments, 5 from 51 to 100 establishments, and the 3 remaining strikes involved over 100 establishments each.

The two following tables show the number of strikes, strikers, and establishments involved, according to the results of the strikes, as well as the number of working days lost, and the proportion that the number of strikers is to the total number of working people, according to 17 groups of industries:

STRIKES IN 1898, BY INDUSTRIES.

Industries.	Succeeded.		Succeeded partly.		Failed.		Total.	
	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.
Agriculture, forestry, and fish-eries	2	8	3	46	2	55	7	109
Mining	4	4	4	4	4	6	12	14
Quarrying	2	6	4	7	3	13	9	26
Food products	2	2	5	107	6	6	13	115
Chemical industries	1	1	2	3	7	3	3	4
Paper and printing	7	16	11	26	7	7	14	23
Hides and leather goods	3	12	11	26	19	20	33	58
Textiles proper	25	147	37	50	42	46	104	243
Clothing, cleaning, and uphol-tery			1	7	5	19	6	26
Woodworking	2	2	4	20	7	25	13	47
Building trades (woodwork)	2	21	2	74	2	8	6	103
Metal refining					1	1	1	1
Metallic goods	6	20	19	76	33	33	58	129
Precious-metal work			1	1			1	1
Stone, earthenware, and glass	4	16	6	10	6	6	16	32
Building trades (stone, tile, excavating, etc., work)	14	67	21	854	23	45	58	966
Transportation and handling	1	6	3	4	10	60	14	70
Total	75	328	123	1,289	170	350	368	1,967

STRIKERS AND DAYS OF WORK LOST BY ALL PERSONS AFFECTED BY STRIKES IN 1898, BY INDUSTRIES.

Industries.	Strikers in—			Total strikers.	Strikers per 1,000 working people. (a)	Days of work lost by all persons affected.
	Success-ful strikes.	Partly success-ful strikes.	Strikes which failed.			
Agriculture, forestry, and fisheries	390	360	306	1,056	0.66	3,875
Mining	1,321	576	2,468	4,365	b 27.80	23,579
Quarrying	290	491	615	1,396	(c)	19,041
Food products	59	1,205	289	1,553	12.09	8,731
Chemical industries	868	614	101	1,482	27.53	758
Paper and printing	179	1,039	680	2,900	2.89	1,804
Hides and leather goods	102	4,807	2,838	1,821	14.56	13,952
Textiles proper	4,864	140	120	12,509	17.32	232,568
Clothing, cleaning, and upholstery		601	347	260	4.37	2,569
Woodworking	97	443	76	1,045	4.43	23,271
Building trades (woodwork)	310		500	829	(d)	3,793
Metal refining		3,632	1,681	500	5.24	2,800
Metallic goods	292	31	1	5,605	18.58	140,289
Precious-metal work		231	206	31	4.4	1,020
Stone, earthenware, and glass	748			1,187	11.12	13,877
Building trades (stone, tile, excavating, etc., work)	724	18,085	27,629	46,438	e 109.79	718,349
Transportation and handling	850	291	1,067	1,708	7.22	6,530
Total	10,594	32,546	38,925	82,065	f 16.07	1,216,306

a Census of 1891.

b Includes quarrying.

c Included in mining.

d Included in building trades (stone, tile, excavating, etc., work).

e Includes building trades (woodwork).

f Relates to all industrial working people in France.

Out of a total of 368 strikes, the largest number, 104, occurred in the textile industry. If, however, the extent of the labor disputes is measured by the number of persons involved, the building trades (stone, tile, excavating, etc., work) greatly exceeded any of the other groups, 46,438 out of a total of 82,065 strikers belonging to this group of industries. Next in importance with regard to the number of strikers were the groups of textiles proper with 12,509, metallic goods with 5,605, and mining with 4,365 strikers. A majority of the strikers succeeded in the chemical, paper and printing, and stone, earthenware, and glass industries, while in the groups of mining, metal refining, building trades (stone, tile, excavating, etc., work), and transportation and handling over one-half of the strikers failed.

Considering the number of persons actually engaged in the various industries according to the census of 1891, it is shown that the relative prevalence of strikes was greatest in the building trades (wood, stone, tile, excavating, etc., work), 109.79 out of every 1,000 employees having taken part in labor disputes during the year. The two groups of mining and quarrying and the group of chemical industries came next with 27.80 and 27.53 strikers per 1,000 employees, respectively.

In the two following tables the strike data are shown by causes:

STRIKES IN 1898, BY CAUSES.

[A considerable number of strikes were due to two or three causes, and the facts in such cases have been tabulated under each cause. Hence the totals for this table necessarily would not agree with those for the preceding tables.]

Cause or object.	Succeeded.		Succeeded partly.		Failed.		Total.	
	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.
For increase of wages	32	176	58	1,106	78	212	168	1,524
Against reduction of wages.....	16	131	15	19	24	44	55	194
For reduction of hours of labor with present or increased wages	10	168	6	20	12	52	28	240
Relating to time and method of payment of wages, etc.....	16	57	8	93	15	21	39	171
For or against modification of conditions of work	12	21	9	79	12	15	33	115
Against piecework	8	91	1	1	5	19	14	111
For or against modification of shop rules.....	12	14	7	7	10	10	29	31
For abolition or reduction of fines	4	5	3	2	6	7	13	14
Against discharge of workmen, foremen, or directors, or for their reinstatement	5	5	2	2	22	26	29	33
For discharge of workmen, foremen, or directors	7	7	5	5	20	20	32	32
Against employment of women. For limitation of number of apprentices.....	1	1	.....	.....	3	8	4	4
Relating to deduction from wages for the support of insurance and aid funds	1	8	2	8	1	1	4	17
Other	5	96	2	11	5	5	12	112
	4	4	2	681	8	34	14	719

STRIKERS AND DAYS OF WORK LOST BY ALL PERSONS AFFECTED BY STRIKES IN 1898, BY CAUSES.

[A considerable number of strikes were due to two or three causes, and the facts in such cases have been tabulated under each cause. Hence the totals for this table necessarily would not agree with those for the preceding tables.]

Cause or object.	Strikers in—			Total strikers.	Days of work lost by all persons affected.
	Successful strikes.	Partly successful strikes.	Strikes which failed.		
For increase of wages.....	4,235	24,513	7,103	35,851	562,117
Against reduction of wages.....	2,404	1,715	1,750	5,869	165,226
For reduction of hours of labor with present or increased wages.....	1,350	979	1,149	3,478	27,082
Relating to time and method of payment of wages, etc.	3,800	952	1,154	5,906	51,268
For or against modification of conditions of work.....	2,776	1,738	541	5,055	34,019
Against piecework.....	891	58	178	1,127	13,244
For or against modification of shop rules.....	2,208	761	893	3,862	32,153
For abolition or reduction of fines.....	735	1,145	740	2,670	32,468
Against discharge of workmen, foremen, or directors, or for their reinstatement.....	316	66	1,715	2,097	23,624
For discharge of workmen, foremen, or directors.....	1,101	644	2,097	3,842	44,900
Against employment of women.....	4	.....	89	93	1,861
For limitation of number of apprentices.....	140	171	22	333	2,893
Relating to deduction from wages for the support of insurance and aid funds.....	1,236	120	773	2,129	105,933
Other.....	513	16,515	27,468	44,496	700,965

Strikes due to wage disputes, either for an increase or against a reduction of wages, continued in 1898, as in the preceding year, to be the most numerous, 223 strikes, involving 41,720 strikers, being due to this cause. By far the greater number of persons engaged in strikes on account of wages were partly successful, or 26,228 out of a total of 41,720 strikers. Of the others engaged in wage disputes, 6,639 succeeded entirely and 8,853 failed. Of the other important causes of strikes, those relating to time and method of wage payments and to modifications of conditions of work were most prevalent. Persons involved in strikes on account of these causes were largely successful. On the other hand, those involved in strikes for or against the discharge of workmen, foremen, etc., or for their reinstatement, and against the employment of women, were largely unsuccessful.

The next two tables show the results of strikes according to their duration and according to the number of strikers involved, respectively:

STRIKES AND STRIKERS IN 1898, BY DURATION OF STRIKES.

Days of duration.	Strikes.				Strikers.			
	Succeeded.	Succeeded partly.	Failed.	Total.	Succeeded.	Succeeded partly.	Failed.	Total.
7 or under.....	57	79	106	242	5,693	8,958	4,557	19,208
8 to 15.....	13	16	31	60	3,300	1,974	5,017	10,291
16 to 30.....	3	13	19	35	185	2,673	27,502	30,366
31 to 100.....	2	13	13	28	1,416	18,807	1,726	21,949
101 or over.....	.....	2	1	3	.....	134	123	257
Total.....	75	123	170	368	10,594	32,546	38,925	82,065

DURATION OF STRIKES IN 1898, BY NUMBER OF STRIKERS INVOLVED.

Strikers involved.	Strikes.				Days of duration.				
	Suc- ceeded.	Suc- ceeded partly.	Failed.	Total.	1 to 7.	8 to 15.	16 to 30.	31 to 100.	101 or over.
25 or under	24	21	77	122	93	15	12	2	.....
26 to 50	14	31	39	84	53	15	6	9	1
51 to 100	12	26	24	62	41	11	5	4	1
101 to 200	12	22	18	52	33	6	7	5	1
201 to 500	7	14	9	30	18	8	2	2	.....
501 to 1,000	5	8	1	14	4	4	2	4	.....
1,001 or over	1	1	2	4	.....	1	1	2	.....
Total	75	123	170	368	242	60	35	28	3

As in the preceding year the strikes were mostly of short duration, 242 of the 368 strikes lasting 7 days or less, 60 lasting from 8 to 15 days, 35 from 16 to 30 days, 28 from 31 to 100 days, and 3 lasting more than 100 days.

Over one-half of the strikes involved 50 strikers or less each. The smaller strikes, involving 25 strikers or less each, were mostly failures, while most of the larger strikes were either wholly or partly successful. Of the 18 strikes involving more than 500 strikers each, 6 succeeded, 9 succeeded partly, and 3 failed.

CONCILIATION AND ARBITRATION.—The law of December 27, 1892, regarding conciliation and arbitration(*a*) in trade disputes was applied in 94 cases during the year, and in 2 cases before work was suspended. As there were in all 368 strikes during the year, these 94 cases constitute 25.54 per cent of all disputes. The proportion for the 5 preceding years, taken collectively, in which the law was applied, was 21.53 per cent. In the 94 cases the initiative in demanding the application of the law was taken by the employees 57 times, by the employers 3 times, by both employers and employees twice, and in 32 cases the initiative was taken through the intervention of the justices of the peace.

As regards the results of the application of the law, it was found that in 4 of the 94 cases work was resumed before committees of conciliation were constituted. In 2 of these the employees abandoned their claims, in 1 they were successful, and in the fourth case they obtained employment elsewhere. In 38 of the remaining 90 cases the demands for conciliation were refused, in 32 cases by employers, in 1 by the employees, and in 5 cases by both employers and employees. In 4 of these 38 cases the workingmen renounced their demands, receiving partial satisfaction in one instance. In the remaining 34 cases of refusal of conciliation strikes were declared, 3 of which were successful, 10 partly successful, and 21 failed.

Deducting the 42 cases above considered from the total number, there remain 52 cases, for the settlement of which 52 committees of con-

a For a copy of this law see Bulletin No. 25, pages 854-856.

ciliation were created. In 18 of these cases the disputes were settled directly by the committees of conciliation, in 2 cases they were settled by arbitration, and in 2 other cases they were adjusted by the parties themselves after having had recourse to committees of conciliation. This leaves 30 cases in which the attempted conciliation and arbitration failed and strikes resulted or continued, which succeeded in 3 cases, succeeded partly in 15, and failed in 12.

The following statement gives a summary of the cases in which recourse was had to the law of 1892 regarding conciliation and arbitration, and the results of such recourse in 1898 and for the preceding five years collectively:

SUMMARY OF CASES IN WHICH RECOURSE WAS HAD TO CONCILIATION AND ARBITRATION, 1893 TO 1897 AND 1898.

Items.	1893 to 1897.	1898.
Total number of strikes.....	2,262	368
Cases in which the law of 1892 was applied.....	a 487	94
Disputes settled—		
Before the creation of committees of conciliation.....	41	4
After refusal of demands for conciliation.....	26	4
Directly by committees of conciliation.....	b 129	18
By arbitration.....	16	2
Directly by parties after having had recourse to conciliation.....	9	2
Total cases settled through the application of the law.....	218	30
Strikes resulting or continuing—		
After refusal of demand for conciliation.....	145	34
After failure of recourse to conciliation and arbitration.....	c 122	30
Total cases of failure after application of the law.....	268	64

a The 487 cases of recourse to the law relate to but 486 disputes.

b There were but 126 disputes settled by committees of conciliation, 3 of them being counted twice because 2 committees were formed in each of these 3 cases.

c Figures here apparently should be 123; those given, however, are according to the original.

From the above summary it will be seen that there were, in 1898, 30 cases in which disputes were settled directly or indirectly through the application of the law of 1892, and 64 cases where recourse to the law proved fruitless, a showing which is somewhat unfavorable when compared with the figures for the five preceding years.

Of the 30 disputes settled as a result of the application of the law, 4 were favorable to the demands of the employees, 20 resulted in a compromise, and 6 were unfavorable to the employees. Of the 64 disputes which continued after the failure of attempts at conciliation and arbitration, 6 succeeded, 25 succeeded partly, and 33 failed.

ITALY.

Atti della R. Commissione d' Inchiesta sui Rapporti fra le Società esercenti le tre principali reti di strade ferrate del Regno e il loro Personale. Volume I, 563 pp.; Volume II, 588 pp.; Volume III, 590 pp.; Volume IV, 518 pp.

This elaborate report is the result of an investigation undertaken by a commission instituted by a royal decree, dated July 30, 1896, for

the purpose of investigating the relations between the companies operating the three principal railway systems in Italy and their employees. The commission consisted of 13 members selected from among the members of both houses of the Italian Parliament, Government officials, and the presidents of the chambers of commerce of Turin and Florence. Although originally appointed for 4 months, its work was of such magnitude that subsequent decrees extended its term to December 31, 1898.

The investigation has special reference to the manner in which the companies carried out that part of their contract of July 1, 1885, which relates to the treatment to be accorded employees after the management of the roads passed from the Government into the hands of the private companies. The railroads coming under this investigation include what are known as the Mediterranean, the Adriatic, and the Sicilian systems.

Volume I contains the report proper of the commission, while the other three volumes consist of the papers and documents accompanying the report. In the prosecution of its work the commission adopted every means at its command, through schedules of inquiry, the taking of testimony, and otherwise, to study the subject under investigation, the information being obtained from the officials, employees, and others who were in a position to aid in the work. The report of the commission consists of three parts. The first part is devoted to the relations of the company and its employees with regard to the terms of the contract, the second part with regard to the public service, while the third part contains the recommendations of the commission.

The particular terms of the contract which constitute the special object of the inquiry provide that the companies accept as employees all persons designated by the Government as being in the active railway service at the time of the transfer, referred to in the report as the organic roll (*ruolo organico*); that in regulating the assignments and wages, the companies will have due regard to the functions, merits, and seniority of the employees then in service; that the organic roll of employees must be submitted to the Government for examination as to its conformity with the terms of the agreement, and that the regulations regarding promotions, suspensions, discharges, etc., before going into force must be submitted to the Government for examination.

The first part of the report, which relates to the observance of the terms of the contract, takes up and discusses in turn each item, such as the roll of employees, their employment, wages, promotion and discharge, rules and regulations, provident institutions, etc., giving in each case a review of the commission's work and its conclusions. The same form was observed in the second part of the report, relating to the management with regard to the good of the public service. Under this head are considered the sufficiency of the force employed, the

hours of labor of employees, their efficiency, causes of discontent, labor disputes, etc.

The conclusions of the commission were generally adverse to the railway companies, showing in many cases a disregard of the terms of the contract, and a justification of the discontent on the part of the employees and others. The commission recommended, among other things, the annual submission of a list of employees and wages to the Government, the adoption of uniform regulations by the 3 companies, the appointment of a Government commission to see that a sufficient number of employees are engaged to meet the needs of the public service, the governmental regulations concerning the efficiency of employees, the establishment of a minimum of 7 hours of continuous rest per day for employees, etc. The commission also recommended that the Government provide the necessary safeguards against the violations of the terms of the contract, or the provisions regarding the numerical sufficiency of the personnel, their efficiency, etc. In general, therefore, the commission recommended a greater governmental supervision over the relations between the companies operating the 3 great railway systems and their employees than had been exercised before.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, has been continued in successive issues. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks and when long by being printed solid. In order to save space, immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

CONSTITUTIONALITY OF STATUTE—COAL MINE INSPECTION—*Chicago, Wilmington and Vermilion Coal Co. v. People*, 54 *Northeastern Reporter*, page 961.—Action was brought by the people of the State of Illinois against the above-named coal company to recover the fees due under the law for the inspection of the company's mines. A judgment against the company was rendered in the circuit court of Sangamon County, Ill., and thereupon the company appealed the case to the supreme court of the State, which rendered its decision October 16, 1899, and affirmed the judgment of the circuit court.

Judge Phillips, in delivering the opinion of the supreme court, which sufficiently shows the facts in the case, used the following language:

Section 29 of article 4 of the constitution is as follows: "It shall be the duty of the general assembly to pass such laws as may be necessary for the protection of operative miners, by providing for ventilation when the same may be required, and the construction of escape-ment shafts, or such other appliances as may secure safety in all coal mines, and to provide for the enforcement of said laws by such penalties and punishments as may be deemed proper." This provision requires the legislature to pass such laws as may be necessary, etc., and leaves to that body the determination of the policy of the State as to what legislation is necessary to conform to its requirements. The legislature has seen proper, in the act entitled "An act providing for the health and safety of persons employed in coal mines," approved May 28, 1879, and in force July 1, 1879, and by the amendments thereto, to require certain duties to be done and performed by the owner, operator, or manager of a coal mine. Section 11 provides for the division of the State into districts, for the appointment of inspectors, and prescribes their duties and fixes their salaries. This latter section was amended in 1895. Prior to that time the inspector was paid wholly by the State, but after the amendment of 1895, and by the amendment of 1897, it was provided that fees might be charged, which were required to be paid by the mine owner. It is these two amendatory statutes which the appellant contends are unconstitutional, as placing a burden that is unreasonable and unjust onto the mine owner.

The object and purpose of the statute are the protection of miners working in coal mines. While the act is an effort on the part of the general assembly to strictly comply with section 29 of article 4 of the constitution, by providing for the ventilation of mines, the construction of escapement shafts, and such other appliances as shall secure safety in all coal mines, the general assembly has seen proper to include a provision for the preparation of maps and the filing of the same with the chief mine inspector of the district, and that on neglect or default of the owner to make such map the inspector may make the same at his expense, and this is one of the requirements of the statute which has been held constitutional by this court.

To a much greater extent the provisions of section 11, which prescribe the duties of the inspector, and require his reports and statements to be posted in a conspicuous place, showing the condition of the mine and what, in his judgment, is necessary for the protection of the lives and health of persons employed in such mine, etc., call for an exercise of the police power of the State. The examination of the condition of the mine would also necessarily require the inspector to examine and report as to whether the manner of construction of escapement shafts, air shafts, and the ventilation of the mine is in conformity with the requirements of the statute. Inspections are necessary in determining health and quarantine laws, and also with reference to the examination of articles to be used as food, and it never has been held that a provision looking to the inspection of certain articles that may be offered for sale for the purposes of human food, or a law providing for inspection with reference to health, required an improper exercise of the police power. Nor could it be held that the provision of the statute with reference to the appointment of inspectors for coal mines, who are to discharge the duties imposed upon them by section 11, does not call for a proper exercise of the police power of the State. The very purpose and object of the statute are in regard to the health and safety of miners, and requiring that mine owners should permit an inspection of their mines for this purpose is but an exercise of such police power.

We do not understand the contention of the appellant to be, however, that these provisions of the statute call for an improper exercise of the police power, but understand the contention is that the provisions of the statute which require a fee to be paid for such inspection by the mine owner require an improper exercise of the police power.

With a recognition of the fact that under the police power the legislature has the right to provide for the inspection of mines, it may also provide for the payment of fees for such inspection, and may place the burden of the payment of such fees on the business that requires the employment of men in such dangerous and hazardous work, to an equal extent as it may place the burden on commerce in the shipment of grain, and appeals much more strongly for a proper enforcement of this character of law by proper inspection than the mere protection of trade. If an inspection is to be had, it is attended with expense. The expense thus incurred is imposed because of the peculiar dangers of the surrounding situation, and subserves not only the interest of the miners, but alike protects the mine owner, and hence the burden of the payment of the fee can be properly imposed upon the mine owner without violating any provision of the constitution.

Appellant contends that legislation, under the provisions of section 29 of article 4, can only be had with reference to ventilation and escapement shafts. Such contention can not be sustained, because that section requires legislation for a particular purpose, having in view the safety of miners, and submits to the legislature the policy to be pursued for the accomplishment of that end, and which can not lightly be interfered with by a court. Appellant, from the position taken, seems to disregard the fact that the legislature may legislate, under the police power which it possesses, outside of the mere mandates of that provision of the constitution. The contention is entirely too narrow. Judgment affirmed.

CONSTITUTIONALITY OF STATUTE—EIGHT-HOUR LAW—MINES AND SMELTERS—*In re Morgan*, 58 *Pacific Reporter*, page 1071.—This was an original application to the supreme court of Colorado by one Thomas A. Morgan for a writ of habeas corpus. The decision of said court was rendered July 17, 1899, and the petition for such writ was granted.

The statement of facts in the case shows the following:

At a preliminary examination before a justice of the peace upon a charge of contracting to labor in a smelter in excess of eight hours per day, the defendant was committed to jail in default of giving the required bail, and to secure his liberty has filed in this court his petition for a writ of habeas corpus. The prosecution was under section 2 of "An act regulating the hours of employment in underground mines and in smelting and ore reduction works, and providing penalties for violations thereof," passed by the twelfth general assembly, the material provisions of which are embraced in the first two sections:

"SECTION 1. The period of employment of workmen in all underground mines or workings shall be eight (8) hours per day, except in cases of emergency, where life or property is in imminent danger.

"SEC. 2. The period of employment of workmen in smelters and in all other institutions for the reduction or refining of ores or metals shall be eight (8) hours per day, except in cases of emergency, where life or property is in imminent danger."

Section 3 makes the violation of the foregoing provisions a misdemeanor, and provides the penalty therefor. (Sess. Laws, 1899, c. 103.) The following sections of the constitution are referred to in the opinion:

Article 2—

"SECTION 1. That all political power is vested in and derived from the people; that all government of right originates from the people, is founded upon their will only, and is instituted solely for the good of the whole.

"SEC. 3. That all persons have certain natural, essential, and inalienable rights, among which may be reckoned the right of enjoying and defending their lives and liberties; that of acquiring, possessing, and protecting property, and of seeking and obtaining their safety and happiness.

"SEC. 28. The enumeration in this constitution of certain rights shall not be construed to deny, impair, or disparage others retained by the people."

Article 5—

"SECTION 25. The general assembly shall not pass local or special laws in any of the following enumerated cases, that is to say: * * * [Subdivision 23.] Granting to any corporation, association, or individual any special or exclusive privilege, immunity, or franchise whatever. [Subdivision 24.] In all other cases where a general law can be made applicable no special law shall be enacted."

The opinion of the supreme court was delivered by Chief Justice Campbell, who, after stating the facts in the case, as above, continued in the following language:

The petitioner challenges the validity of the statute, as inhibited by the foregoing clauses of the organic law. The position of the attorney-general is that it was passed as a health regulation, and may be vindicated as coming within the range of the police powers of the State. Four years before it became an act this court, to an inquiry of the house of representatives of the tenth general assembly as to the constitutionality of a bill reading "Eight hours shall constitute a legal day's work for all classes of mechanics, workmen, and laborers employed in any mine, factory, or smelter of any kind whatsoever in the State of Colorado," replied that it was "not competent for the legislature to single out the mining, manufacturing, and smelting industries of the State and impose upon them restrictions with reference to the hours of their employees from which other employers of labor are exempt." And it was further said that the section "violates the right of parties to make their own contracts—a right guaranteed by our bill of rights." (In re Eight-hour bill, 21 Colo., 29; 39 Pac., 328.) The twelfth general assembly must have been aware of this, and another decision concerning the power of the legislature to pass what is called a "coal-screening bill"—the opinion being reported in 21 Colo., 27, and 39 Pac., 431 (In re House bill No. 203)—in which this species of legislation was condemned as hostile to the constitution. But, wholly disregarding these decisions, binding alike on all departments of government, it proceeded to enact the measure now before us. Though it affords no justification for such legislative action in defiance and against the solemn decision of this court, we presume the excuse that might be offered therefor is that, after these decisions were handed down, in a sister State [Utah] an act in the same language was passed and approved by its highest court, and, as is claimed, sanctioned by the Supreme Court of the United States. [See *Holden v. Hardy*, U. S. Department of Labor Bulletin No. 10, page 387; *State v. Holden*, U. S. Department of Labor Bulletin No. 11, page 508; and *Holden v. Hardy*, U. S. Department of Labor Bulletin No. 17, page 625.]

The question presented for our determination is, Does the act under which the petitioner is being prosecuted violate any constitutional provision? In this resolution the provisions of our own constitution must govern. Decisions of other jurisdictions defining the limits of legislation under their constitutions are not always to be followed elsewhere, upon the supposition that the same limitations everywhere prevail. A comparison of many other constitutions with ours shows that the latter probably contains more restrictions upon the power of the legislature than are to be found in any other instrument.

Except as to the penalty, the act is identical in terms with a law of Utah, which, in three cases in the supreme court of that State, has

been held valid; and in two of the cases, on writ of error from the Supreme Court of the United States, the judgment of the State court has been affirmed.

In the constitution of Utah there is an entire article (16) devoted to the rights of labor. For our present purpose, sections 1, 6, and 7 only need be here reproduced. They are:

"SECTION 1. The rights of labor shall have just protection through the laws calculated to promote the industrial welfare of the States.

"SEC. 6. Eight hours shall constitute a day's work on all works or undertakings carried on or aided by the State, county, or municipal governments; and the legislature shall pass laws to provide for the health and safety of employees in factories, smelters, and mines.

"SEC. 7. The legislature, by appropriate legislation, shall provide for the enforcement of the provisions of this article."

While disclaiming any expression of opinion as to whether the act in question might or might not be upheld as an exercise of the police power, which, though unexpressed in the constitution, resides in every sovereign State, the supreme court of Utah clearly grounded its decision upon the mandatory nature of the foregoing section 6. The imperative command thereof was thought to operate both upon the legislature and the courts—upon the legislature as an express injunction requiring the enactment of legislation to protect the health of the classes enumerated, and upon the courts as an implied restriction, withdrawing from them an inquiry into such legislation as should be passed in obedience to that command, upon which investigation, in the absence of the constitutional limitation, and with respect to such legislation as comes within the range of the general police power, the court might enter to ascertain if it accords with the constitution.

After quoting from a number of authorities the chief justice continues as follows:

In the light of these authorities it is clear: First, that the decision of the supreme court of Utah in construing the Utah statute is not an authority here, for the reason that the decision there was based entirely upon the mandatory nature of a provision of the Utah constitution which is not present in our organic act; second, in affirming the judgment of the Utah court, the decision of the Supreme Court of the United States in the Holden cases is not a precedent for this court in construing our act, for the reason that the sole question before the Federal court was whether or not the Utah act violated the Federal Constitution. If, however, it could be maintained that this affirmance was in effect a determination that the Utah law was in harmony with the Utah constitution, the decision of the Federal court would not be an authority here, because we have no such constitutional provision.

The extent and meaning of the act in question are not difficult of ascertainment, though it is not a model of statutory composition. That it operates as a limitation both upon the employer and the employee seems clear. It forbids a certain kind of employment. There can be no employment without the concurring acts of him who contracts for employment and of him who contracts to be employed. Both are within the inhibitions of the enactment, and if it is valid each is liable to the penalty for making the forbidden contract. The petitioner, therefore, as a laboring man, is prohibited from entering into a con-

tract to work in a smelter more than eight hours in any one day. If in our constitution there was, as there seems to be in that of Utah, a specific affirmative provision enjoining upon the general assembly the enactment of laws to protect the health of the classes of workmen therein enumerated, it might be that acts reasonably appropriate to that end would not be obnoxious to that provision of our constitution forbidding class legislation. The two provisions should be construed together so as to harmonize, if that be possible under sound canons of construction, and the general clause forbidding class legislation might be regarded as qualified by the special one which authorizes such legislation in respect to the enumerated classes. Article 16 of our constitution is devoted to mining and irrigation, and section 2 directs that "the general assembly shall provide by law for the proper ventilation of mines, the construction of escapement shafts, and such other appliances as may be necessary to protect the health and secure the safety of the workmen therein." These regulations manifestly embrace only such reasonably necessary mechanical appliances as will secure the end in view, and do not include other kinds of health regulations. We have no constitutional provision which authorizes the legislature to single out workingmen in underground mines and smelters and impose upon them restrictions as to the number of hours they shall work at these industries, from which workingmen in all other departments of industry are exempt.

The act is equally obnoxious to the provisions of our bill of rights set out in the statement which guarantee to all persons their natural and inalienable right to personal liberty, and the right of acquiring, possessing, and protecting property. Liberty means something more than mere freedom from physical restraint. It includes the privilege of choosing any lawful occupation for the exercise of one's physical and mental faculties which is not injurious to others. The right to acquire and possess property includes the right to contract for one's labor. The latter is essentially a property right. That this act infringes both the right to enjoy liberty and to acquire and possess property seems too clear for argument. While not conceding that this limitation is not permissible, counsel for respondent, as we understand them, recognize the fact (but, if they do not, the same is only too apparent) that these natural rights are violated by the provisions of the act. The limitation is claimed to be warranted on the ground that these and all other constitutional guaranties must yield to the paramount and sovereign right of the State to exercise its police power to protect the public health, and to this, the principal question in this proceeding, we now address ourselves.

Starting then with the premise, which is practically admitted to be true, that this act contravenes the constitutional provisions quoted in the statement, let us see if, notwithstanding this conflict, it can be justified as a valid exercise of the police power. It is difficult to define, or with precision to describe, the police power. Prof. Tiedeman in his work on the Limitations of Police Power, in section 1, says: "The object of government is to impose that degree of restraint upon human actions which is necessary to the uniform and reasonable conservation and enjoyment of private rights. * * * The conservation of private rights is attained by the imposition of a wholesome restraint upon their exercise—such a restraint as will prevent the infliction of injury upon others in the enjoyment of them." He fur-

ther quotes with approval the language of Judge Redfield in the case of *Thorpe v. Railroad Co.*, 27 Vt., 140: "This police power of the State extends to the protection of the lives, limbs, health, comfort, and quiet of all persons, and the protection of all property within the State. According to the maxim, 'Sic utere tuo ut alienum non lædas' [one must so use his own as not to injure others], which being of universal application, it must of course be within the range of legislative action to define the mode and manner in which everyone may so use his own as not to injure others." And Prof. Tiedeman immediately follows this quotation with the statement that: "Any law which goes beyond that principle—which undertakes to abolish rights, the exercise of which does not involve an infringement of the rights of others, or to limit the exercise of rights beyond what is necessary to provide for the public welfare and the general security—can not be included in the police power of the government." It thus appears that, in proceeding under this power, the legislature must choose proper subjects for its exercise, and must observe constitutional limitations just as closely as when it enacts laws pertaining to the public revenue, or provides for the exercise of the power of eminent domain.

In the light of these principles every act of this character must be tested. While invoking as a warrant for this act that phase of the police power extending to the public health, its supporters do not claim that its real and primary object is to protect the public health, or the health of that portion of the community in the immediate vicinity, or affected by the operation of smelters. Were the object of the act to protect the public health, and its provisions reasonably appropriate to that end, it might be sustained; for in such a case even the constitutional right of contract may be reasonably limited. But the act before us is not of that character. In selecting a subject for the exercise of the police power, the legislature must keep within its true scope. The reason for the existence of the power rests upon the theory that one must so use his own as not to injure others, and so as not to interfere with or injure the public health, safety, morals, or general welfare. How can an alleged law that purports to be the result of an exercise of the police power be such in reality when it has for its only object, not the protection of others, or the public health, safety, morals, or general welfare, but the welfare of him whose act is prohibited, when, if committed, it will injure him who commits it, and him only? What we mean to decide is that in a purely private lawful business, in which no special privilege or license has been granted by the State, and the carrying on of which is attended by no injury to the general public, it is beyond the power of the legislature under the guise of the police power to prohibit an adult man who desires to work thereat from working more than eight hours a day, on the ground that working longer may, or probably will, injure his own health.

The result of our deliberation is that this act is an unwarrantable interference with, and infringes the right of both the employer and employee in making contracts relating to a purely private business in which no possible injury to the public can result; that it unjustly and arbitrarily singles out a class of persons, and imposes upon them restrictions from which others similarly situated and substantially in the same condition are exempt; and that it is not, under our constitution, a valid exercise of the police power of this State, either in the act selected or in the reasonableness of the regulation.

CONSTITUTIONALITY OF STATUTE—PAYMENT OF WAGES—VALIDITY OF AGREEMENT FOR EXTENSION OF TIME FOR PAYMENT OF WAGES ON CONSIDERATION OF PART PAYMENT—*Skinner v. Garnett Gold-Mining Co.*, 96 *Federal Reporter*, page 735.—This was an action by attachment originally brought in the superior court of Sierra County, Cal., to recover from the above-named defendant corporation for labor performed by the plaintiff, one Skinner, and on assigned claims for labor performed by others. The case was transferred to the United States circuit court for the northern district of California, on the ground that the defendant was a foreign corporation, having been organized under the law of West Virginia. The plaintiff relied upon the provisions of chapter 170 of the acts of California of 1897, page 231, an act relating to the payment of wages. The defendant alleged that said act was unconstitutional, and, while admitting that it owed the amount for which the suit was brought, claimed that an agreement was entered into between the plaintiff and his assignors and the defendant to wait a certain time for all wages earned prior to a certain date, and that under said agreement, as to such wages, the action had been prematurely brought. The decision of the circuit court was rendered September 6, 1899, and a judgment was rendered in favor of the plaintiff.

In the course of the opinion of said court, delivered by Circuit Judge Morrow, the following language was used:

The title of the act the benefit of which has been claimed by plaintiff, and the constitutionality of which defendant contests, reads:

"An act requiring every corporation doing business in this State to pay their employees, and each of them, at least once in each and every month, the wages earned by such employee; to limit the defenses which may be set up by such corporation to assignments of wages, set-off or counter claims, or the absence of such employees at the time of making payment, and in case of such absence the wages are payable upon demand; to prohibit assignments of wages for the purpose of evading the provisions of this act and agreements to accept wages at longer periods than as herein provided as a condition of employment; to fix a penalty for this violation of the provisions of this act by such corporation, and to provide for the disposition of any fines recovered from corporations violating the same."

The purpose of the act is expressed in section 1, which provides that—

"Every corporation doing business in this State shall pay at least once a month each and every employee employed by such corporation in transacting or carrying on its business or in the performance of labor for it the wages earned by such employee during the preceding month: *Provided, however,* That if at the time of payment any employee shall be absent or not engaged in his usual employment he shall be entitled to said payment at any time thereafter upon demand."

The provisions of all the sections of this act, with the exception of sections 2 and 6, are referred to in the title as quoted above. Section 2 provides:

"A violation of any of the provisions of section one of this act shall entitle each of said employees to a lien on all the property of said cor-

poration for the amount of their wages, which lien shall take preference over all other liens except duly recorded mortgages or deeds of trust; and in any action to recover the amount of such wages or to enforce said lien the plaintiff shall be entitled to a reasonable attorney's fee, to be fixed by the court, and which shall form part of the judgment in said action, and shall also be entitled to an attachment against said property. An unrecorded deed shall be no defense to such actions."

Section 6 is as follows:

"All wages earned by any employee engaged in the service of any corporation in this State shall be paid in lawful moneys of the United States or in checks negotiable at face value on demand."

The constitution of California (section 24, art. 4) declares that "every act shall embrace but one subject, which subject shall be expressed in its title." Defendant contends that, since the provisions of sections 2 and 6 of the above act are not specifically referred to in its title, these two sections are unconstitutional. The unconstitutionality of these two sections, even if established, does not invalidate the entire act, but merely the sections involved. Section 24, art. 4, of the constitution of California also provides:

"But if any subject shall be embraced in an act which shall not be expressed in its title, such act shall be void only as to so much thereof as shall not be expressed in the title."

It will be observed that we are not concerned with section 6 in the present controversy, and it may therefore be omitted from consideration. The subject of the act is comprised in section 1, which enacts that corporations shall pay their employees regularly each month. The other sections contain provisions designed to secure compliance with section 1, and section 2 provides a penalty for the violation of this section. Two sections in this act (sections 2 and 7) provide against violation of its provisions. It is evident that these sections are intended to enforce compliance with the regulations of the act regarding its subject comprised in section 1, and there is consequently no reason why their provisions should have found expression in the title of the act.

Defendant further attacks the statute in question upon the ground that it contravenes the following provisions of the constitution of the State: (1) Section 13, art. 1: "No person shall * * * be deprived of life, liberty, or property without due process of law." (2) Section 1, id.: "All men * * * have certain inalienable rights, among which are those of * * * acquiring, possessing, and protecting property." (3) Section 21, id.: "Nor shall any citizen or class of citizens be granted privileges or immunities which, upon the same terms, shall not be granted to all citizens." (4) Fourteenth amendment to the Constitution of the United States: "Nor shall any State deny to any person within its jurisdiction the equal protection of the law." Defendant contends that the statute discriminates unreasonably against corporations and destroys the liberty and property of private contracts in several of its provisions. Section 2 of the act, *supra*, is regarded by defendant as an unjust discrimination against corporations.

The opinion at this point refers to and comments on a case cited by the defendant, and then continues in the following words:

It will be perceived that the case under discussion bears no resemblance to the case cited above. In that case there was a direct attack

upon the property of corporations, an attempt to make corporations submit to a system of taxation different from that generally employed in this State, and to saddle them with more than their proper share of the burdens of State taxation. In this case no peculiar burden is imposed. The statute in question merely provides for the payment of wages already due at certain regular periods, and lays down regulations framed to secure compliance with its provisions in this respect.

The court here refers to an act concerning the payment of wages passed by the legislature of California in 1891 (St. Cal. 1891, p. 195), cites and quotes from several decisions of the California supreme court, in which said act was declared to be unconstitutional, and then goes on to say:

The statute of 1897 appears to dispose of the constitutional objection urged against the act of 1891. The statute of 1891 was declared unconstitutional because of its arbitrary classification of laborers, according to which those who were employed by the week or month enjoyed advantages over those not so employed. The statute of 1897 provides specifically that all employees of corporations shall be paid at least once a month, and makes no such discrimination as the statute of 1891, but entitles all employees of corporations to the same remedies. The question here is whether the statute of 1897 so discriminates between corporations and other persons as to render it unconstitutional for that reason.

The court here refers to a case decided in a Federal court holding a certain statute of the State of Tennessee to be unconstitutional, and then continues in the following language:

The statute in the above Tennessee case was properly considered as discriminating against railroad corporations. It professed to provide "for the regulation of railroad companies and persons operating railroads in this State," and in so providing it discriminated as regards penalties and in other respects against corporations operating railroads. Such a statute can not be regarded as parallel with the California statute under consideration. The California statute imposes certain legal duties upon corporations in general, and makes certain provisions intended to secure the performance of these duties by corporations. This interpretation of the statute as not being a special law is in accord with the decisions of the supreme court of this State.

The constitution of this State contains the usual provisions concerning corporations, and provides that:

"All laws now in force in this State concerning corporations, and all laws that may be hereafter passed pursuant to this section, may be altered from time to time or repealed." (Article 12, section 1.)

Under this provision the act of 1897 must be held as a legitimate exercise of the plenary power of the legislature to modify, by general laws, within reasonable limits, the rights and privileges which corporations of the State possess as such; and this legislation may be justified upon the ground that the purposes of the State in creating corporations will be the better accomplished by such amendment.

Defendant's contention that the statute of 1897 unjustly discriminates against corporations can not be sustained in regard to the provisions of sections 1 and 2 of that statute. There is no discrimination

involving the breach of any of the constitutional enactments invoked by the defendant. The provisions that corporations shall have a regular monthly pay day, and that the employees of a corporation shall, in the event of a violation of the provisions of section 1 by the corporation, be entitled to a lien on the property of the corporation, taking precedence of all other liens except recorded mortgages and deeds of trust; to a reasonable attorney's fee if he is obliged to bring an action at law to recover his wages, and to an attachment against the property of the corporation, and that an unrecorded deed shall not be a defense to such an action, are not such as unjustly discriminate against the defendant.

Defendant further contends that the act is unconstitutional upon the ground that it deprives the employee and the corporation of the liberty and property of making contracts, without due process of law. In the course of its argument in this respect defendant attacks various sections of the statute of 1897 other than sections 1 and 2 of that statute. Plaintiff, however, bases his action upon these two sections, and the remaining sections may therefore be left out of consideration in this case. As far as these two sections are concerned there does not appear to be good ground for the contention of defendant. Section 1 provides for the monthly payment of wages which have been already earned, and which are due from the corporation to the employee, and section 2 provides penalties in case such provision is not complied with. It does not appear in what respects defendant is deprived of any liberty in making contracts by reason of these enactments. They simply constitute an effort to secure the regular payment to the employee of a corporation, by such corporation, of the wages to which he is entitled by virtue of his work performed, and an effort to make his legal remedy for the irregular payment of such wages as little troublesome and as little expensive as possible. The contention of defendant as to the unconstitutionality of the statute must be denied.

Defendant also urges that the action is premature as to the sum of \$1,814.48, or "back pay," claimed therein. Defendant admits indebtedness to that extent, but argues that under the terms of an agreement made by the parties on or about the 8th of October, 1897, plaintiff and his assignors agreed to wait until the following February for one-half of their wages due on August 23, 1897, the other half of which "back pay" they received upon the 8th of October, 1897, at the same time that they entered into the agreement to wait. This action was commenced on December 17, 1897, prior to the time for the expiration of the alleged agreement. A copy of the pay roll of the Garnett Gold Mining Company was admitted in evidence. This pay roll contained nine parallel columns, namely: The first column, "Names;" the second, "Total amt. due wages;" the third, "Board deducted;" the fourth, "No. of days;" the fifth, "Cash paid;" the sixth, "Balance due;" the seventh, "Paid on %;" the eighth, "Bal. payable six months from Aug. 23, '97;" and the ninth and last, "Received payments. Bal. payable 6 mos. Accepted." The plaintiff and his assignors signed their names in the last column. It is contended by defendant that this constitutes an agreement on the part of plaintiff and his assignors to wait until February, 1898, for the balance of the amounts due them. Plaintiff denies that any such agreement was made, and his evidence was to the effect that when he signed the alleged agreement he thought he was receipting an ordinary pay roll. The evidence of defendant's

witnesses was altogether unsatisfactory upon the point whether plaintiff and his assignors were informed of the character of the alleged agreement, and that it differed from an ordinary pay roll. But, even conceding the fact of the agreement, plaintiff urges that such an agreement, if made, is merely a nudum pactum, and can have no legal value for want of consideration. Defendant maintains that there was good consideration for the agreement, and alleges that suits have been brought for "back pay" by some of plaintiff's assignors, and that the company had informed the men that, unless the six months' extension was given and all the suits dismissed, the company could do nothing more, and litigation would have to take its course. Defendant claims that the benefit derived by the men from this settlement was sufficient consideration to support the agreement. Section 1605 of the Civil Code of California defines "consideration" as follows: "Any benefit conferred, or agreed to be conferred, upon the promisor by any other person, to which the promisor is not lawfully entitled, or any prejudice suffered or agreed to be suffered by such (other) person, other than such as he is at the time of consent lawfully bound to suffer, as an inducement to the promise, is a good consideration for a promise."

It can not be maintained that plaintiff and his assignors had any benefit conferred upon them by such an agreement as is here set forth by defendant. Half of their wages was overdue, and it was the duty of defendant to pay such wages upon demand. The promise to perform that duty after an interval of six months can not be called good consideration for the agreement. The supreme court of this State, in the case of *Sullivan v. Sullivan*, 99 Cal., 187, 193; 33 Pac., 862, 864, declares: "It is well settled that neither a promise to perform a duty nor the performance of a duty constitutes the consideration of a contract."

The plaintiff is entitled to a reasonable attorney's fee, to be fixed by the court (section 2, act March 29, 1897; St. Cal., 1897, p. 231), which shall form part of the judgment in said action. I am of the opinion that the attorney's fee should be fixed at \$300, and such will be the order. A judgment will therefore be entered for the plaintiff for the amount claimed and attorney's fee of \$300 and costs.

CONSTITUTIONALITY OF STATUTE—STORE ORDERS, SCRIP, ETC., ISSUED IN PAYMENT OF WAGES TO BE REDEEMED IN CASH—*Harbison v. Knoxville Iron Co.*, 53 *Southwestern Reporter*, page 955.—Action was brought by Sam Harbison against the above-named company in the chancery court of Knox County, Tenn. A decree was rendered for the plaintiff, Harbison, and the same was affirmed on appeal by the court of chancery appeals. The defendant company then appealed the case to the supreme court of the State, which rendered its decision November 8, 1899, and affirmed the decrees of the lower courts.

The opinion of the supreme court, delivered by Judge Caldwell, shows the facts in the case as well as the reasons for the decision, and the following is quoted therefrom:

The defendant is a domestic corporation, engaged in the manufacture and sale of iron and in the mining and sale of coal. It employs

about 200 laborers, and has one regular pay day each month, being that Saturday which is nearest to the 20th of the particular month. On this day each employee is paid in cash the amount due him up to the 1st day of the month, but never up to the day of payment. On every Saturday in the month, however, the defendant holds itself in readiness to pay all of its employees the full amount then due them if they will receive it in orders for coal at 12 cents per bushel; and the afternoon of every Saturday, from 1 o'clock to 5 o'clock, is set apart for that purpose. About 75 per cent of all the wages earned by the laborers is paid in these coal orders. The orders are in the following form: "Let bearer have — bushels of coal, and charge to my account. [Signed] ——. Accepted —, 1899. Knoxville Iron Company." The complainant purchased 614 of these orders, aggregating \$1,678, and thereafter presented them to the defendant on a regular pay day, and demanded payment in cash. Payment being refused, he brought this suit to collect the several orders. He bases his action on sections 1 and 2 of chapter 11 of the acts of 1899. [See laws of Tennessee, page 452, post.]

The company defends upon three grounds: (1) That the act does not apply to a case like this; (2) that complainant is not a bona fide holder, and (3) that the act is unconstitutional. These defenses will be considered in the order named.

1. The substance of the first contention is that by a correct construction it must be held that "all persons, firms, corporations, and companies using coupons, scrip, punchouts, store orders, or other evidences of indebtedness to pay their or its laborers or employees" means only such persons, firms, corporations, and companies as are accustomed to use coupons, scrip, punchouts, store orders, or other evidences of indebtedness to pay their or its laborers or employees, and as so use them arbitrarily; and that the defendant has no such custom, and is, therefore, not included in the terms of the act. No reason is perceived by the court for so restricting and limiting the broad and unqualified words of the statute. The evident intention of the legislature was to include every person, firm, corporation, and company using coupons, scrip, punchouts, store orders, or other evidences of indebtedness to pay their or its laborers and employees, whether such use be habitual and arbitrary or only occasional and without constraint. But if this were not true, the defendant is included by its own construction. The court of chancery appeals found that the defendant is so accustomed to use coal orders that it in that "way pays off about 75 per cent of the wages earned by its employees," and that its course of business in that respect is one "whereby employees are systematically, in the main, settled with in coal orders instead of cash, and where, though there is no compulsion in form, yet in fact, by holding back their wages, such a motive power is brought to bear upon their freedom of choice as to practically amount to coercion;" that "the facts of the case show a species of compulsion whereby the defendant takes advantage of the necessities of the improvidence of its employees, and so places them in a position where they feel compelled to take their wages in coal orders." So that by the true construction, and also by that suggested by the defendant, it is included in the provisions of the statute.

2. It is next contended that complainant is not a bona fide holder, because he purchased the coal orders sued upon at a discount of 15 cents on the dollar. It is true that complainant gave only 85 cents on

the dollar for these orders, but that does not prevent him from being a bona fide holder within the meaning of the statute. He made the purchases upon the open market, fairly and honestly, and gave 10 cents more on the dollar for the orders than they had usually sold for. To constitute him a bona fide holder it is only necessary that he should have bought the orders fairly, honestly, and for a reasonable price, in good faith, as contradistinguished from bad faith. The suggestion that complainant's recovery, if allowed at all, should be limited to the price paid, is conclusively answered by the provisions of the statute that the redemption or recovery shall be for "the face value of such scrip, punchouts, coupons, store orders, or other evidences of indebtedness."

3. Finally, it is said that the act abridges the right of contract, and for that reason it is challenged as repugnant to that part of section 1 of the fourteenth amendment to the Constitution of the United States which declares that no State shall "deprive any person of life, liberty, or property without due process of law," and to that part of section 8 of article 1 of the constitution of Tennessee which declares that "no man shall be * * * deprived of his life, liberty, or property but by * * * the law of the land." A corporation is a "person" within the provision against deprivation of life, liberty, or property "without due process of law," and it is a "man" within the provision against deprivation of liberty or property otherwise than by "the law of the land." Hence the defendant, which is a corporation, is entitled to the protection guaranteed by both provisions. The "liberty" contemplated in each provision means not only the right of freedom from servitude, imprisonment, or physical restraint, but also the right to use one's faculties in all lawful ways, to live and work where he chooses, to pursue any lawful calling, vocation, trade, or profession, to make all proper contracts in relation thereto, and to enjoy the legitimate fruits thereof. "Property," as the word is there used, signifies not only those tangible things of which one may be the owner, but everything he may have of an exchangeable value. It includes the right to acquire and dispose of property and to make all lawful contracts essential to those ends, and such contracts are entitled to the same protection as the property itself. The right of contract is undoubtedly an inherent part of the right of liberty and also of the right of property, and deprivation of it is equally forbidden. But none of them are unlimited rights. All are subject to the law's control, and may at any time be abridged or enlarged, or even destroyed, within constitutional bounds. None of them can be affected or taken away except by "due process of law" or the "law of the land;" yet all of them may be curtailed or destroyed by that means. The declaration against deprivation "without due process of law," or otherwise than by the "law of the land," necessarily implies that deprivation may be rightly accomplished and justified by such process or law. What, then, is "due process of law," or the "law of the land?" The two phrases have exactly the same import, and that which is entitled to recognition as the one is to be recognized as the other also. The present statute, if valid, is "the law of the land" as to the provisions thereof, and that which is accomplished by it is done "by due process of law." All valid laws, statutory and otherwise, now existing in this State constitute the aggregate body of our present "law of the land," and each part, each separate law that is complete in itself, may properly be called the "law of the

land" as to the matter or matters embraced therein. Some of these laws are old and some are new. They are constantly changing, and for that reason it is impossible to formulate a definition that will at all times include everything that may be or come within, and exclude everything that may be or fall without, the true meaning of the phrase, "law of the land."

It is sufficient, for the purposes of this case, to say that legislation is not open to the charge of depriving one of his rights without "due process of law" if it be general in its operation upon the subjects to which it relates, and is enforceable in the usual modes established in the administration of government with respect to kindred matters—that is, by process or proceedings adapted to the nature of the case. When applied to general legislation, the clause "law of the land" was defined in our earlier cases to mean a general and public law equally binding upon every member of the community; but by our later cases it is defined to mean a law which embraces all persons who are or may come into like situation and circumstances; and when applied to special or class legislation it means, in addition, that "the classification must be natural and reasonable, not arbitrary and capricious." Though operating equally on all persons in like condition, while in existence, the "law of the land" on no subject can be truly said to be immutable. On the contrary, it is always subject to change, by diminution or enlargement, by repeal or substitution, as different and new conditions arise; otherwise there could be no advance in legislation or legal development, and the legislative department of the government would be wholly unnecessary and superfluous. The law is, in fact, a progressive science, and its growth must be allowed to keep pace with the advance of civilization.

When first adopted in Magna Charta, the phrase "the law of the land" had reference to the common and statute law then existing in England; and when embodied in our Constitution it referred to the same common law as previously modified, and so far as suited to the wants and conditions of our people in a new country. At present "the law of the land" embraces the same body of laws as still further modified; those parts validly cut off being now excluded, and those validly added being now included. Every valid statute of the State now in existence, whenever enacted in the present "law of the land" in respect to the subject-matter of that statute, and every existing enactment passed with due form and ceremony, and not in conflict with some provision of the State or Federal constitution, is a valid statute; and no statute otherwise valid is unconstitutional because affecting one's life, liberty, or property, if when being general, it embraces all persons who are or may be in like situation and circumstances; or when, being special, it is, in addition, natural and reasonable in its classification; or, as otherwise expressed: "If it be general in its operation upon the subjects to which it relates, and is enforceable in the usual modes established in the administration of government with respect to kindred matters" (*Dent v. West Virginia*, 129 U. S., 124; 9 Sup. Ct., 234; 32 L. Ed., 626). Confessedly, the enactment now called in question is in all respects a valid statute, and free from objection as such, except that it is challenged as an arbitrary interference with the right of contract, on account of which it is said that it is unconstitutional, and not the "law of the land," or "due process of law."

The act does undoubtedly abridge or qualify the right of contract,

in that it requires that certain obligations, payable in the first instance in merchandise, shall in certain contingencies be paid in money. Yet it is as certainly general in its terms, embracing equally every employer and employee who is or may be in like situation and circumstances, and it is enforceable in the usual modes established in the administration of governments with respect to kindred matters. Under the act the present defendant may issue weekly orders for coal as formerly, and may pay them in that commodity, when desired by the holder; but, instead of being able, as formerly, to compel the holder to accept payment of such orders in coal, the holder may, under the act, compel defendant to pay them in money. In this way, and to this extent, the defendant's right of contract is affected. Under the act, as formerly, every employee of the defendant may receive the whole of [or] a part of his wages in coal orders, and may collect the orders in coal, or transfer them to some one else for other merchandise or for money. His condition is bettered by the act, in that it naturally enables him to get a better price for his coal orders than formerly, and thereby gives him more for his labor; and yet, although the defendant may not in that transaction realize the expected profit on the amount of coal called for in the orders, it in no event pays more in dollars and cents for the labor than the contract price.

The scope and purpose of the act are thus indicated: The legislature evidently deemed the laborer at some disadvantage under existing laws and customs, and by this act undertook to ameliorate his condition in some measure by enabling him, or his bona fide transferee at his election, and at a proper time, to demand and receive his unpaid wages in money, rather than in something less valuable. Its tendency, though slight it may be, is to place the employer and employee upon equal ground in the matter of wages, and, so far as calculated to accomplish that end, it deserves commendation. Being general in its operation, and enforceable by ordinary suit, and being unimpeached and unimpeachable upon other constitutional grounds, the act is entitled to full recognition as the "law of the land" and "due process of law" as to the matters embraced, without reference to the State's police power. Furthermore, the passage of the act was a legitimate exercise of police power, and upon this ground also the legislation is well sustained. The first right of a State, as of a man, is self-protection, and with the State that right involves the universally acknowledged power and duty to enact and enforce all such laws, not in plain conflict with some provision of the State or Federal constitution, as may rightly be deemed necessary or expedient for the safety, health, comfort, and welfare of its people.

Besides the amelioration of the employees' condition * * * the act was intended and is well calculated to promote the public peace and good order, and to lessen the growing tendency to strife, violence, and even bloodshed in certain departments of important trade and business. In the case of *Holden v. Hardy*, already referred to (169 U. S., 392; 18 Sup. Ct., 383; 42 L. Ed., 780), the court held that a statute of Utah, making it a misdemeanor to employ laborers to work under the ground or in smelters for a period of more than eight hours per day, except in cases of emergency, was valid as a police regulation. In that case, as in this one, the counsel of the employer urged that the act worked a peculiar hardship upon the employee, in that it violated his right to contract as he pleased. To that contention the court aptly replied:

"The argument would certainly come with better grace and greater cogency from the latter class. But the fact that both parties are of full age, and competent to contract, does not necessarily deprive the State of the power to interfere where the parties do not stand upon an equality, or where the public health demands that one party to the contract shall be protected against himself. The State still retains an interest in his welfare, however reckless he may be. The whole is no greater than the sum of all the parts, and when the individual health, safety, and welfare are sacrificed or neglected the State must suffer."

The court here mentioned certain acts touching the question of contracts between employers and employees which had been passed by many of the States, and cited numerous decisions thereon, and then continued as follows:

The act before us is perhaps less stringent than anyone considered in any of the cases mentioned. It is neither prohibitory nor penal; not special, but general; tending toward equality between employer and employee in the matter of wages; intended and well calculated to promote peace and good order, and to prevent strife, violence, and bloodshed. Such being the character, purpose, and tendency of the act, we have no hesitation in holding that it is valid, both as general legislation, without reference to the State's reserved police power, and also as a wholesome regulation adopted in the proper exercise of that power.

CONSTITUTIONALITY OF STATUTE—TRADE-MARKS, ETC., OF TRADE UNIONS, ETC.—*State v. Bradt*, 53 *Southwestern Reporter*, page 942.—George M. Bradt was indicted in the circuit court of Hamilton County, Tenn., for the alleged violation of certain provisions of chapter 107 of the acts of 1897, relating to the trade-marks, etc., of trade unions, associations of workmen, etc. The judge of the circuit court quashed the indictment on the ground that the act above referred to was unconstitutional and the State thereupon appealed to the supreme court of the State, which rendered its decision November 20, 1899, and affirmed the action of the lower court.

From the opinion of the supreme court, delivered by Judge Caldwell, the following is taken:

The indictment is in good form. It contains three counts, the first being preferred under section 1, the second under section 2, and the third under section 6 of the act mentioned. The indictment is undoubtedly good if the act is a valid law; otherwise, it is bad, having no other law to rest upon.

The court here recited the title of the act as follows:

"An act to provide for the filing and recording, by any person or association, or union of workmen, of a label, trade-mark, term, design, device, or form of advertisement for the purpose of designating or making known or distinguishing any goods, wares, or other products of labor, as having been made, manufactured, produced, or put on sale by such person, association, or union of workmen, or

by a member of such union or association; and to prohibit the counterfeiting or imitation or unauthorized use of such label, trade-mark, term, design, device, or form of advertisement, and to prescribe punishment for a violation of the provisions of this act."

The court at this point quoted the act in full and then continued as follows:

The objection urged by defendant's counsel against the validity of the enactment is found in the contention that it violates the second clause of section 17 of article 2 of the State constitution, which declares that "no bill shall become a law which embraces more than one subject, that subject to be expressed in the title." The objection is a fatal one, for the act, as framed, embraces three subjects; that expressed in the title and two others. The subject expressed in the title is only "the filing and recording of labels, trade-marks, etc., and their protection," while the act treats of that subject in sections 3 and 4, and of another subject, "adopting and using labels, trade-marks, etc., not filed and recorded and their protection," in sections 1, 2, 5, and 6, and of still another subject, "the unauthorized use of the name or seal of one person by another," in the seventh section. It may be that a title could have been framed in such general language as to express one general subject embracing and warranting all the legislation found in the body of this act, but that was not done. On the contrary, the title actually employed is self-limiting and restrictive. It relates alone to the filing and recording of labels, trade-marks, etc., and their protection, and by its narrow terms limits the legislation permissible thereunder to that narrow subject. Obviously, the subject, as expressed in the title, is not broad enough in its scope to include the other subjects embraced in the act, hence their presence brings the legislation within the prohibition of the constitution, and renders it null and void.

CONSTITUTIONALITY OF STATUTE—WEIGHING OF COAL AT MINE—*State v. Wilson*, 58 *Pacific Reporter*, page 981.—Henry Wilson was convicted for the violation of section 1 of chapter 188, acts of Kansas of 1893, in a district court of that State. From a judgment of the court of appeals of Kansas for the southern department, eastern division, affirming the judgment of the district court, he appealed to the supreme court of Kansas, which rendered its decision November 11, 1899, and affirmed the decisions of the lower courts. The statute regulating the weighing of coal at the mine, for a violation of which Wilson was convicted, and the constitutionality of which was affirmed in the above-mentioned decisions, reads as follows:

SECTION 1. It shall be unlawful for any mine owner, lessee, or operator of coal mines in this State, employing miners at bushel or ton rates, or other quantity, to pass the output of coal mines by said miners over any screen or other device which shall take any part from the value thereof before the same shall have been weighed and duly credited to the employees and accounted for at the legal rate of weights as fixed by the laws of Kansas.

SEC. 2. The weighman employed at any mine shall subscribe an oath or affirmation, before a justice of the peace or other officer authorized to administer oaths, to do justice between employer and employee, and to weigh the output of coal from mines in accordance with the provisions of section 1 of this act. Said oath or affirmation shall be kept conspicuously posted in the weigh office, and any weigher of coal, or persons so employed, who shall knowingly violate any of the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction, shall be punished by a fine of not less than twenty-five nor more than one hundred dollars for each offense, or by imprisonment in the county jail for a period not to exceed thirty days, or by both such fine and imprisonment.

SEC. 3. The miners employed by or engaged in working for any mine owner, operator, or lessee in this State shall have the privilege, if they so desire, of employing at their own expense a check-weighman, who shall have like rights and privileges in the weighing of coal as the regular weighman, and be subject to the same oath and penalties as the regular weighman.

SEC. 4. Any person or persons having or using any scale or scales for the purpose of weighing the output of coal at mines so arranged or constructed that fraudulent weighing may be done thereby, or who shall knowingly resort to or employ any means whatever, by reason of which such coal is not correctly weighed and reported in accordance with the provisions of this act, shall be deemed guilty of a misdemeanor, and shall, upon conviction, for each offense be punished by a fine of not less than two hundred dollars nor more than five hundred dollars, or by imprisonment in the county jail for a period not to exceed sixty days, or by both such fine and imprisonment.

SEC. 5. Any provisions, contract, or agreement between mine owners or operators thereof and the miners employed therein whereby the provisions of section 1 of this act are waived, modified, or annulled shall be void and of no effect; and the coal sent to the surface shall be accepted or rejected, and if accepted shall be weighed in accordance with the provisions of this act; and right of action shall not be invalidated by reason of any contract or agreement.

SEC. 6. The provisions of this act shall also apply to the class of workers in mines known as loaders, engaged in mines wherein mining is done by machinery. Whenever the workmen are under contract to load coal by the bushel, ton, or any quantity the settlement of which is had by weight, the output shall be weighed in accordance with the provisions of this act.

The decision of the supreme court was not unanimous, Justice Smith dissenting. The syllabus of the opinion of the majority of the judges, which was prepared by the court, reads as follows:

1. "An act to regulate the weighing of coal at the mine," being chapter 188 of the laws of 1893, is constitutional and valid as a proper exercise of the police power. It does not purport to prevent the operators of coal mines and the miners employed by them from making such agreements as they choose concerning the amount of wages to be paid, or in any wise infringe upon the freedom of contract.

2. Where miners are employed at bushel, ton, or other quantity rates, it is a valid requirement of the law that the output of coal mined by them shall not be passed over any screen or other device which

shall take any part from the value thereof before the same shall have been weighed and duly credited to the employees and accounted for at the legal rate of weights. Information is by this means furnished to the miner by which he may act intelligently, and rest his demand for wages upon the calculated results of what he has accomplished in the past. It also affords the operator knowledge, from the use of which wages may be adjusted based upon known facts. Such law is further beneficial in that it supplies the public with statistics showing the total amount of coal produced in the State.

In a strong dissenting opinion Judge Smith used the following language:

The construction applied to this law by the majority of the court seems to me to be a provision of legislative intent, and we need not go beyond the language of its several sections to ascertain that the obvious and sole purpose of the enactment was to control and restrict the right of contract.

The judge at this point reviewed and quoted from the provisions of the act and then said:

The obvious meaning is that if a miner contracts to take out coal for, say, one dollar per ton for all screened coal mined by him, he must be paid one dollar per ton for the mine run—that is, the total weight of the substance extracted from the earth by him having a marketable value—and all contracts for determining the amount of his compensation on any other basis, when he works by ton or quantity rates, are invalidated. It means that, when the miner makes a contract to take out coal at so much per ton for screened coal, the bargain does not bind him; that when he sues his employer for wages the court must give him judgment, not on the contract, but, finding the weight of all coal he has taken out (both screenings and lump), the gross product is to be credited to him, and compensation given on the basis of its weight. Section 5 can certainly have no reference to a right of action brought by a miner to recover wages computed on the basis of screened coal, for he had such a right of action independent of the statute. But it was manifestly the purpose of the act to give the miner a right of action to recover his wages computed on the basis of coal weighed in accordance with the provisions of the law—that is, computed on the basis of coal weighed before screening—and that notwithstanding any contract to the contrary. This seems to me to be the plain, palpable, and obvious meaning of the statute.

In determining legislative intent we have the right to consider the nature of the demands upon the lawmakers which induced legislation for the remedy of an existing evil. We know that the demand for such legislation was based upon the claim that coal miners were not paid enough for their labor; that they were at the mercy of the operators, who, by screening the product, robbed them of a portion of the proceeds of their labor, which should have been paid for. The object was to right this wrong, and to this end the statute under consideration was passed. To rule otherwise is a wresting of obvious language from its purpose. No clamor rang in the ears of the lawmakers from oppressed and starving miners demanding a law which would furnish them with statistics, when they were crying for bread.

As against the remote probability that the act, as interpreted by the

majority, will result in any benefit to the miner is the certainty that the public at large will suffer by its enforcement if the quantity or ton rate of payment prevails. The total output of coal in the State for the year 1898 was, in round numbers, 3,860,000 tons. It is estimated that about one-third of the production is slack coal, which goes through the screens. The cost of this compulsory weighing must be added to the price of the fuel, which the consumer (the public) is compelled to pay in order that it may be known with mathematical certainty how many tons the mines of the State have yielded. This tribute is exacted from the consumers of Kansas coal to satisfy the contention that the law contemplates some other object than the regulation of wages.

In justifying this legislation as a proper exercise of the police power, I think that power has been unwarrantably extended. Such power must have relation to the health, comfort, safety, or necessities of the people. It can not include matters which are connected merely with the convenience of the public. In the case of *Millett v. People* (Ill. Sup.), 7 N. E., 631-636, the supreme court of Illinois passed upon the validity of an act quite similar to this, relating to the weighing of coal at the mines. In holding the law unconstitutional, as infringing upon the right to contract, the court answered the argument that the act might be defended on the ground that it required the keeping of a public record for the information of the public. Schofield, J., says: "We recognize fully the right of the general assembly, subject to the paramount authority of Congress, to prescribe weights and measures and to enforce their use in proper cases, but we do not think that the general assembly has power to deny to persons in one kind of business the privilege to contract for labor and to sell their products without regard to weight, while at the same time allowing to persons in all other kinds of business this privilege, there being nothing in the business itself to distinguish it in this respect from any other kind of business. And we deny that the burden can be imposed on any corporation or individual, not acting under a license or by virtue of a franchise, of buying property and hiring labor merely to furnish public statistics, unless upon due compensation to be made therefor."

In my judgment the design of the framers has been misconstrued and perverted. A law thought by them to be endowed with strength and virility, aiming at the correction of abuses in the field of labor, has been disfigured by its interpreters, its true purpose denied. Strange and imaginary reasons are put forward as excuses for its existence, and explanations made of its utility which are highly fanciful and speculative. By a process of refined construction its original identity has been effectively destroyed, until recognition by its creators is now impossible.

EMPLOYERS' LIABILITY—CONSTRUCTION OF STATUTE—CONTRIBUTORY NEGLIGENCE—*Whitcomb v. Standard Oil Co.*, 55 *Northeastern Reporter*, page 440.—Action was brought in the circuit court of Porter County, Ind., by James E. Whitcomb against the above-named company to recover damages for injuries incurred by him while in the employ of said company. Judgment was rendered in favor of the defendant company, and the plaintiff, Whitcomb, appealed the case to

the supreme court of the State, which rendered its decision November 28, 1899, and affirmed the judgment of the lower court.

The opinion of the court was delivered by Chief Justice Hadley, and the syllabus of the same, which sufficiently shows the facts in the case, reads as follows:

Plaintiff, a brakeman in defendant's employ, whose hand was mashed by being caught between deadwoods while coupling cars in defendant's yard, testified that there was nothing to prevent his seeing that both the cars coupled had deadwoods, and that he could have seen the deadwoods perfectly if he had looked. *Held*, that his injury might have been avoided by the exercise of due care.

Coemployees' liability act (Act 1893, page 294), section 1 [section 7083, Annotated Statutes of 1894], which makes every railroad or other corporation operating in the State liable for damages for personal injury suffered by any employee while in its service who is in the exercise of due care and diligence, when such injury is caused by any defect in the plant, tools, or machinery in use by such corporation, which is the result of negligence; or when such injury results from the negligence of any person in the service of such corporation to whose order the injured employee was bound to conform, and did conform, does not relieve an employee of any such company from that caution and care of himself required by the common law.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—BREACH OF MASTERS' DUTY—FELLOW-SERVANTS, ETC.—*Kansas City, Fort Scott and Memphis Railroad Co. v. Becker*, 53 *Southwestern Reporter*, page 406.—Action was brought by William Becker against the above-named railroad company for personal injuries sustained by him while in the employ of the defendant as a locomotive fireman. The evidence showed that he was injured by the turning of the step on the left-hand side of his engine as he jumped upon it in order to get on the engine cab, the engine being at the time in motion. A judgment in favor of the plaintiff, Becker, was rendered in the circuit court of Craighead County, Ark., and the defendant company appealed the case to the supreme court of the State, which rendered its decision June 17, 1899, and affirmed the decision of the lower court.

From the opinion of the supreme court, delivered by Judge Battle, the following is quoted:

The maintenance of the steps in good repair and safe condition was intrusted to two employees of the defendant. It was the duty of the engineer, when his engine was on the road and away from Thayer, to examine and keep the steps in safe condition by means of the tap at the end of the rod, for which purpose he was provided with the necessary tools. It was also his duty, when he ran his engine into the roundhouse at Thayer, where the engines operated on the road between Thayer and Memphis, on their return from the latter place, were inspected and repaired, to report any defects in his engine which

needed repairing, and blanks were furnished him for the purpose. At Thayer was a machinist, named Johnson, whose duty it was to inspect the lower part of the locomotives, including the steps, when they came in, as a protection against any neglect of the engineer. Johnson also made repairs. The bad condition of engine numbered 30, if attributed to the fault of any one, was due to the negligence of one or both of these employees.

The railroad of appellant is built and operated in part in this State. In regard to such railroads the constitution provides as follows: "All railroads which are now or may hereafter be built and operated, either in whole or in part, in this State, shall be responsible for all damages to persons and property, under such regulations as may be prescribed by the general assembly." (Article 17, section 12.)

The court here recited in full sections 6249 and 6250 of the Digest of Arkansas, the law regulating the liability of railroad corporations for injuries of their employees, and then continued as follows:

The effect of these statutes is to limit the risk assumed by an employee on account of the acts or omissions of persons in the service of the same employer to the neglect of those who are fellow-servants within the meaning of the statutes, and to impose upon the master the duty to protect him against the neglect of all other fellow-employees in the discharge of their duties, and to render the employer liable in damages for injuries suffered on account of the failure to discharge this duty.

The appellant was and is subject to and governed by these statutes, and is liable to its employees in tort for injuries caused by the failure to discharge any duties growing out of them.

At the request of the appellant, and with the consent of the appellee, the court instructed the jury that Bennett, the engineer, and appellee, the fireman [Becker] were fellow-servants at the time the injury occurred. Now appellant's counsel says: "If we admit * * * that Bennett, the engineer, did not inspect this step at Memphis, and did not apply the usual test to ascertain its condition, and that he was negligent, it being admitted in this case by the record that Bennett and the plaintiff were fellow-servants, then we submit that there is no room for reasonable minds to differ on the proposition that Bennett's negligence was the direct and promoting cause of this injury, because, but for his negligence (admitting that he was negligent, and admitting that the step was defective at Memphis), the injury could not have happened, and his negligence, if he was negligent, was not a contributing cause, but was the direct, immediate, last moving, and approximate cause of the accident." * * * But this is not correct. The trial court told the jury that if they found that the step by which the appellee was injured was defective, that Johnson negligently failed to discover that it was in that condition, that his negligence contributed to the injury, and that he was not a fellow-servant of Becker, to return a verdict in favor of appellee. If such findings were true, Johnson's negligence was a proximate cause of the injury; for there is no evidence that he fastened the step when the engine was at Thayer, the last time before the accident occurred. He testified that he did not. The failure of the engineer to fasten the step did not render the negligence of Johnson harmless or less effective, but left it free to

work the injury it was lying in wait to inflict. The injury was probably the result of the concurring negligence of the two employees, and may not have occurred in the absence of either. It is no defense, however, for the appellant to prove that the negligence of the engineer contributed to it.

The court here stated in effect that the company complained because the lower court refused to instruct the jury that the plaintiff and Johnson, the machinist, were fellow-servants, and that therefore the company was not liable for the negligence of Johnson, and then continued as follows:

Were Johnson and Becker fellow-servants? Under the statutes of this State four conditions must concur to constitute different employees of the same railroad company fellow-servants: First, they must be engaged in the common service of the railway company. Second, while so engaged they must be working together to a common purpose. Third, neither of them must be intrusted by the railway company with any superintendence or control over their fellow-employees. Fourth, they must be engaged in the same department of service.

Did the relations of Johnson and Becker conform to all these conditions? Johnson was an inspector and repairer of all appellant's engines at Thayer, about 50 or 60 in number, and Becker was a fireman on one of them. Johnson's duty was to inspect the engines in the roundhouse, and make such repairs as he could in the way of screwing up bolts and nuts and putting in springs and other work. His [Becker's] chief duties were performed on his engine while on the road. Johnson was in the mechanical department, and subject to the authority of the roundhouse foreman, and Becker, while on the road in the discharge of his duties, was in the transportation department, and subject to the authority of the superintendent of the same. As they were not working together in the same department at the time the accident occurred, it follows that they were not fellow-servants at the time when Becker was injured, and that the instruction asked for by the appellant to the contrary effect was properly refused. Judgment affirmed.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—CONSTRUCTION OF STATUTE—*Benson v. Chicago, St. Paul, Minneapolis and Omaha Ry. Co.*, 80 *Northwestern Reporter*, page 1050.—This action was brought in the district court of Hennepin County, Minn., by Andrew Benson to recover damages from the above-named railway company for injuries incurred while in its employ. His right to such damages depended upon the construction of a section of chapter 220 of the acts of Wisconsin of 1893, which reads as follows:

Every railroad or railway company operating any railroad or railway, the line of which shall be in whole or in part within this State, shall be liable for all damages sustained within this State by any employee of such company, without contributory negligence on his part; first, when such injury is caused by any defect in any locomotive, engine, car, rail, track, machinery, or appliance required by said company to be

used by its employees in and about the business of such employment, when such defect could have been discovered by such company by reasonable and proper care, tests, or inspection, and proof of such defect shall be presumptive evidence of knowledge thereof on the part of such company; second, or while any such employee is so engaged in operating, running, riding upon, or switching passenger or freight or other trains, engines, or cars, and while engaged in the performance of his duty as such employee, and which such injury shall have been caused by the carelessness or negligence of any other employee, officer, or agent of such company in the discharge of, or for failure to discharge his duties as such.

The district court rendered a judgment for the defendant company after a hearing, and Benson appealed the case to the supreme court of Minnesota, which rendered its decision December 11, 1899, and affirmed the decision of the lower court.

The opinion of the supreme court was delivered by Judge Brown, and the syllabus of the same, which clearly states the facts in the case, reads as follows:

Defendant was engaged in repairing its track at a point in the State of Wisconsin, and employed a large number of men in and about such work, including plaintiff. Boarding cars were kept and maintained at or near the work, at which such employees were boarded and lodged. As the work progressed the men became farther removed from the boarding cars, and at their request and for their convenience defendant furnished them hand cars on which to transport themselves to and from their work. Defendant did not manage the boarding cars, nor operate nor have control of the hand cars. Such hand cars were operated exclusively by the men, and they had full charge and control thereof. A collision occurred between two of such hand cars while the men were transporting themselves thereon to the boarding cars for their dinner, and plaintiff was injured. The collision was caused by the negligence of the employees in charge of one of such cars, and plaintiff was free from fault. *Held*, that the employees were not, within the purpose and meaning of chapter 220, Laws Wis., 1893, at the time of such collision and injury, engaged in the discharge of their duties under their employment, and defendant is not liable.

DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—DUTIES OF THE MASTER—*Galveston, Houston and San Antonio Ry. Co. v. Hughes et ux.*, 54 *Southwestern Reporter*, page 264.—Edward P. Hughes and wife brought suit in the district court of El Paso County, Tex., to recover damages for the death of their son, W. E. Hughes, who was killed while in the employment of the above-named railroad company. A judgment was rendered for the plaintiffs, and the company appealed the case to the court of civil appeals of the State, which rendered its decision November 1, 1899, and affirmed the decision of the district court.

The opinion was delivered by Judge Fly, and from the same the following, sufficiently stating the facts in the case, is quoted:

The deceased, an inexperienced young man, whose inexperience was known to appellant, applied for and obtained from appellant employment in its switch yard in El Paso. About two hours after his employment deceased, while performing the duties incumbent upon him, got his foot fastened in an unblocked frog and was run over and crushed in such a manner by appellant's cars that he died.

The testimony clearly demonstrated that deceased had been in the employ of appellant about two hours at the time of his death; that he was inexperienced and unacquainted with the dangers of his employment, and that appellant knew of his inexperience. The rule is: "If there are any dangers, either latent or patent, of which the master has knowledge, either actual or presumed, which the employee, either from his youth, inexperience, want of skill, or other cause, does not, or is presumed not to, understand or comprehend, they must be made known to him by the master; and this duty of the master is the same as to the machinery or appliances used or to be used by him. It is presumed that the master, or the person placed in charge of a hazardous business or department thereof, is familiar with the dangers, latent or patent, ordinarily accompanying the business which he has in charge. The obligation is not discharged by informing the servant generally that the service in which he is engaged is dangerous, and more especially is this so when the servant is a person who neither by experience nor by education has, or would be likely to have, any knowledge of the perils of the business, either latent or patent. In such case the servant should be informed not only that the service is dangerous, but of the perils of a particular place and the particular or peculiar dangers that attend the service, if any." (Bailey, Mast. Liab., pages 111, 112.)

Ordinarily a person who accepts employment from another assumes all ordinary risks incident thereto and can not recover for injuries resulting therefrom; and doubtless, in the absence of knowledge on the part of the employer of an applicant for employment coming within the exceptions furnished by youth, inexperience, or want of skill, the employer could assume that he was not within the exceptions, and would not be under obligations to warn him of the dangers incident to his employment; but in this case appellant knew deceased was inexperienced, and its yard master recognized the necessity of instructing him as to the work, but for some reason failed to do it.

It was in proof, and we find, that unblocked frogs and guard rails are dangerous to persons working in switch yards, and that this was unknown to deceased and was known to appellant, but it gave no warning to deceased, although it knew him to be inexperienced. The evidence was sufficient to establish negligence on the part of appellant, and that deceased was not guilty of contributory negligence.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—FELLOW-SERVANTS, ETC.—*New England Railroad Co. v. Conroy*, 20 *Supreme Court Reporter*, page 85.—This was an action against the above-named railroad corporation brought by one Conroy, a brakeman in its employ,

to recover damages for personal injuries caused by the negligence of the conductor of one of its trains. It was brought before the Supreme Court of the United States upon a certificate from the United States circuit court of appeals for the first circuit for answer to questions as to whether a conductor was (1) a fellow-servant of a brakeman, or (2) whether he was a vice-principal, for whose negligence his employer is responsible.

The decision of the Supreme Court was rendered December 4, 1899, to the effect that the conductor and brakeman aforesaid were fellow-servants. In the opinion of the Supreme Court, Mr. Justice Shiras, who delivered the same, laid down the common-law rule of fellow-servants or coemployees as interpreted by the court, and the following is quoted therefrom:

There is a general rule of law, established by a great preponderance of judicial authority in the English and in the State and Federal courts, that one who enters the service of another takes upon himself the ordinary risks of the negligent acts of his fellow-servants in the course of the employment. But there have been conflicting views expressed in the application of this rule in cases where the employer is a railroad company or other large organization, employing a number of servants engaged in distinct and separate departments of service; and our present inquiry is whether the relation between the conductor and the brakeman of a freight train is that of fellow-servants, within the rule, or whether the conductor is to be deemed a vice-principal, representing the railroad company in such a sense that his negligence is that of the company, the common employer.

Unless we are constrained to accept and follow the decision of this court in the case of *Chicago, M. and St. P. R. Co. v. Ross*, 112 U. S., 377; 28 L. Ed., 787; 5 Sup. Ct. Rep., 184, we have no hesitation in holding, both upon principle and authority, that the employer is not liable for an injury to one employee occasioned by the negligence of another engaged in the same general undertaking; that it is not necessary that the servants should be engaged in the same operation or particular work; that it is enough to bring the case within the general rule of exemption if they are in the employment of the same master, engaged in the same common enterprise, both employed to perform duties tending to accomplish the same general purposes, or, in other words, if the services of each in his particular sphere or department are directed to the accomplishment of the same general end; and that, accordingly, in the present case, upon the facts stated, the conductor and the injured brakeman are to be considered fellow-servants within the rule.

At this point the court cited and quoted from several of the cases in which the above principles were enunciated, and then continued in the following language:

Without following further the history of this subject in the courts of the several States, we may state that, generally, the doctrine there upheld is that of the cases herein previously cited, except in the courts of the States of Ohio, Kentucky, and perhaps others, in which the rule seems to obtain that while the master is not liable to his servant for any injury committed by a servant of equal degree in the same

sphere of employment, unless some negligence is fixed on the master personally, yet that he is liable for the gross negligence of a servant superior in rank to the person injured, and is also liable for the ordinary negligence of a servant not engaged in the same department of service.

Leaving the decisions of the State courts and coming to those of this court, we find the latter to be in substantial harmony with the current of authority in the State and English courts. From this statement the case of *Chicago, M. and St. P. R. Co. v. Ross*, 112 U. S., 377; 28 L. Ed., 787; 5 Sup. Ct. Rep., 184, must perhaps be excepted, and to it we shall revert after an examination of our other cases.

The court here referred to and quoted from a number of leading cases decided by itself, and then continued as follows:

Without attempting to educe from these cases a rule applicable to all possible circumstances, we think that we are warranted by them in holding in the present case that, in the absence of evidence of special and unusual powers having been conferred upon the conductor of the freight train, he, the engineer, and the brakeman must be deemed to have been fellow-servants within the meaning of the rule which exempts the railroad company, their common employer, from liability to one of them for injuries caused by the negligence of another. This conclusion is certainly sound unless we are constrained to hold otherwise by the decision in *Chicago, M. and St. P. R. Co. v. Ross*, 112 U. S., 377; 28 L. Ed., 787; 5 Sup. Ct. Rep., 184, already referred to.

In so far as the decision in the case of *Ross* is to be understood as laying it down, as a rule of law to govern in the trial of actions against railroad companies, that the conductor merely from his position as such is a vice-principal, whose negligence is that of the company, it must be deemed to have been overruled, in effect if not in terms, in the subsequent case of *Baltimore and O. R. Co. v. Baugh*. [149 U. S., 368; 13 Sup. Ct. Rep., 914.]

At this point the court quoted quite largely from the opinion of the court in the *Baugh Case*, above, delivered by Mr. Justice Brown, and then continued as follows:

Accordingly the conclusion reached was that, although the party injured was a fireman, who was subject to the orders and control of the engineer, in the absence of any conductor, there was no liability on the company for negligence of the ad interim conductor.

That this reasoning and conclusion were inconsistent with those in the *Ross Case* is not only apparent on comparing them, but further appears in the dissenting opinion in the *Baugh Case* of Mr. Justice Field, who was the author of the opinion in the case of *Ross*.

To conclude, and not to subject ourselves to our own previous criticism of proceeding upon assumptions not founded on the evidence in the case, we shall content ourselves by saying that, upon the facts stated and certified to us by the judges of the circuit court of appeals, we can not, as a matter of law, based upon those facts and upon such common knowledge as we, as a court, can be supposed to possess, hold a conductor of a freight train to be a vice-principal within any safe definition of that relation. Accordingly we answer the first question put to us in the affirmative and the second question in the negative.

Mr. Justice Harlan delivered a dissenting opinion in language as follows:

I concurred in the opinion and judgment of this court in *Chicago, M. & St. P. R. Co. v. Ross*, 112 U. S., 377; 28 L. Ed., 787; 5 Sup. Ct. Rep., 184, and do not now perceive any sound reason why the principles announced in that case should not be sustained. In my judgment the conductor of a railroad train is the representative of the company, in respect to its management; all the other employees on the train are his subordinates in matters involved in such management, and for injury received by any one of those subordinates during the management of the train, by reason of the negligence of the conductor, the railroad company should be held responsible. As the conductor commands the movements of the train, and has general control over the employees connected with its operation, the company represented by him ought to be held responsible for his negligence resulting in injury to other employees discharging their duties under his immediate orders. If in such case the conductor be not a vice-principal, it is difficult to say who among the officers or agents of a corporation sued by one of its employees for personal injuries ought to be regarded as belonging to that class. Having these views, I am compelled to withhold my assent from the opinion and judgment in this case.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—NEGLIGENCE OF INDEPENDENT CONTRACTOR—*Norfolk and Western Railway Company v. Stevens*, 34 *Southeastern Reporter*, page 525.—Action was brought in the hustings court of Roanoke, Va., by Charles R. Stevens, administrator of the estate of Joseph Stevens, deceased, to recover damages from the above-named railroad company for the death of said Stevens while in its employ as a locomotive fireman, caused by the negligence of the Phoenix Bridge Company, which was putting in a new bridge over a river under a contract with the railroad company. A judgment was rendered for the plaintiff, and the defendant company carried the case upon writ of error before the supreme court of appeals of the State, which rendered its decision November 16, 1899, and reversed the judgment of the lower court upon the ground, among others, that where it is the custom of railroad companies to have certain work, not essentially hazardous, done by independent contractors, and ordinary care is used in the selection of such contractor, the railroad company can not be held responsible for injuries resulting to its employees through the negligence of such independent contractor, since the railroad company is not an insurer of the safety of its employees, but is bound only to exercise ordinary care for their safety.

The opinion of the court, delivered by Judge Keith, reads, upon this point, as follows:

It is shown in the evidence that it is the general custom of railroad companies to construct bridges as was done in this case, and that it is

not an essentially hazardous undertaking; that while it requires care to substitute a new bridge for an old one without the interruption of traffic, with ordinary care it may be done with entire safety. It further appears that the Phoenix Bridge Company is an established and reputable concern, largely engaged in such work, and has the confidence of the business public. As we have before said, the contract between the bridge company and the railroad company seems carefully to have guarded, as far as human foresight could do, against the dangers incident to the work. If the bridge company had complied strictly with its contract, the accident would not have occurred. It was due to the removal of the false work before a sufficient number of rivets had been put into the new bridge to sustain the train that undertook to pass over it. But the railroad company is not responsible for the negligence of the Phoenix Bridge Company. It is responsible only for its own negligence and that of its agents and employees, while the Phoenix Bridge Company was an independent contractor.

The railroad company is not an insurer of the safety of its employees. It is bound by law only to exercise ordinary care for their safety, no matter how hazardous the business may be in which the servant is engaged, and the degree of care in the particular case is to be ascertained by the general usages of the business.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—RELEASE OF CLAIM FOR DAMAGES—CONSIDERATION—*Potter v. Detroit, Grand Haven and Milwaukee Railway Co.*, 81 *Northwestern Reporter*, page 80.—In the circuit court of Shiawassee County, Mich., Frank A. Potter recovered a judgment in a suit brought by him against the above-named railway company for damages for injuries incurred by him while in its employ. The company then appealed the case to the supreme court of the State, which rendered its decision December 12, 1899, and affirmed the judgment of the lower court.

In the opinion of the supreme court, delivered by Judge Montgomery, the following, showing an interesting point decided in the case, appears:

Some time after plaintiff received his injuries, and on October 31, 1892, he signed a release reciting that he had received certain injuries, as follows: "At Milwaukee Junction, while riding on a ladder of car, was knocked off by a post standing a little west of the road crossing, cutting my head and bruising my shoulder;" and, after reciting that the company denied liability, for the purpose of determining and ending the question of liability and to avoid litigation, in consideration of reemployment by the company, the release proceeds: "I do hereby waive and relinquish all claims that I may have against the said company for damages for the aforesaid injuries, and do hereby release the said company of and from all claims as aforesaid." The recited consideration for this release is "the reemployment by said company for such time only as may be satisfactory to the said company." The testimony shows that at the time when the release was signed the plaintiff was already again in the defendant's employ. No change as

to the terms of employment was made, nor was the defendant company bound to retain him in its employ for any length of time whatever. There was no consideration for the release. We discover no material error. The judgment should be affirmed.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—VICE-PRINCIPALS—
Galveston, Houston and San Antonio Railway Company v. Robinett, 54 *Southwestern Reporter*, page 263.—Action was brought in the district court of Bexar County, Tex., by D. C. Robinett against the above-named railroad company to recover damages for injuries incurred by him while in the employ of said company as a brakeman. He was injured in a collision of the train he was working on with another, through the negligence either of the superintendent of the road in issuing orders to the trains or of those immediately in charge of the trains. Besides showing the above, the testimony also showed that the plaintiff, Robinett, was not guilty of any negligence proximately contributing to his injury.

A judgment was rendered in his favor and the defendant company appealed to the court of civil appeals of the State, which rendered its decision November 29, 1899, and affirmed the judgment of the lower court. Judge Neill, in delivering the opinion of the court, spoke in part as follows:

But, apart from the question of orders, the undisputed evidence shows that a vice-principal of plaintiff caused the collision. Robinett was the brakeman, having no control over the train, and knowing nothing about the orders which controlled it. The conductor had absolute control over him, and ordered the train out. It could make no difference, so far as Robinett was concerned, whether the collision was brought about by improper orders from the superintendent or by the negligence of those in immediate charge of the trains. None of these parties were his fellow-servants, and the company was liable to him for the negligence of any or all of them.

LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE JANUARY 1, 1896.

[The Second Special Report of the Department contains all laws of the various States and Territories and of the United States relating to labor in force January 1, 1896. Later enactments are reproduced in successive issues of the Bulletin from time to time as published.]

ARIZONA.

ACTS OF 1899.

ACT No. 19.—*Trade-marks of trade unions, etc.*

SECTION 1. Whenever any corporation, association, or union of workmen have adopted or shall hereafter adopt for its or their protection any label, trade-mark, or form of advertisement announcing that goods to which such label, trade-mark, or form of advertisement shall be attached were manufactured by it or by a member or members of such union, it shall be unlawful for any person or corporation to counterfeit or imitate such label, trade-mark, or form of advertisement. Every person violating this section shall, upon conviction, be punished by imprisonment in the county jail for not less than three months nor more than one year, or by a fine of not less than one hundred dollars nor more than two hundred dollars, or by fine and imprisonment.

SEC. 2. Every person who shall use any counterfeit or imitation of any label, trade-mark, or form of advertisement of any such corporation, union, or association, knowing the same to be counterfeit or imitation, shall be guilty of a misdemeanor, and shall be punished by imprisonment in the county jail for a term of not less than three months nor more than one year, or by a fine of not less than one hundred dollars nor more than two hundred dollars, or by both.

SEC. 3. Every such association, union, or corporation that has heretofore adopted or shall hereafter adopt a label, trade-mark, or form of advertisement, as aforesaid, shall file the same in the office of the secretary of the Territory, by leaving two copies, counterparts or facsimiles thereof, with the secretary of the Territory. Said secretary shall deliver to such corporation, association, or union so filing the same a duly attested certificate of the record of the same, for which he shall receive a fee of three dollars; such certificate of record shall in all suits and prosecutions under this act be sufficient proof of the adoption of such label, trade-mark, or form of advertisement, and the right of said union, corporation, or association to adopt the same.

SEC. 4. Every person who shall use or display the genuine label, trade-mark, or form of advertisement of any such association, corporation, or union in any manner not authorized by such association, corporation, or union shall be deemed guilty of a misdemeanor, and shall be punished by imprisonment in the county jail not less than three months nor more than one year, or by a fine of not less than one hundred dollars nor more than two hundred dollars, or both.

SEC. 5. Any person or persons who shall in any way use the name or seal of any such association, corporation, or union, or officer thereof, in and about the sale of goods, or otherwise, not being authorized to use the same, shall be guilty of a misdemeanor, punishable by imprisonment in the county jail of not less than three months nor more than one year, or by a fine of not less than one hundred dollars nor more than two hundred dollars, or both.

SEC. 6. It shall be the duty of the secretary of the Territory to see that all associations, unions, or corporations enjoying the benefits of labels, trade-marks, or forms of advertisement herein described shall comply with the foregoing provisions in all respects.

SEC. 7. This act shall take effect and be in force from and after its passage.

Approved March 6, 1899.

ACT No. 34.—*Convict labor.*

SECTION 1. When any person shall be lawfully sentenced for a misdemeanor by any district court or justice of the peace to serve a certain number of days in any

county jail in this Territory, it shall be competent for the court awarding such sentence to incorporate therein a provision that the person so sentenced shall be kept at hard labor during the term of such sentence, or for any specified portion thereof as may be adjudged by said court.

Sec. 2. It shall be the duty of the keepers of said several jails within said Territory, when any such person shall be sentenced to hard labor therein, and any mode of labor shall be provided, to cause such prisoner to be kept constantly employed during every day, Sunday excepted, and when such prisoner is discharged to report to the board of supervisors of such labor, and in all such cases it shall be lawful for said custodian of such prisoner, with the consent of the board of supervisors of such county in which such jail may be situated, to provide labor for such prisoners, if they deemed it expedient and profitable to do so, either inside of said jail or outside of its limits.

Sec. 3. The several keepers of said [county] jails shall respectively have power, with the consent of the board of supervisors of said county, from time to time to cause such of the prisoners under their charge as are capable of hard labor to be employed on any of the public avenues, streets, highways, or other works, where the same will not conflict in any manner or form with free labor in the county in which such prisoners shall be confined.

In any case tried before a justice of the peace of any precinct, and the party so tried and convicted for a petit offense, and sentence given not to exceed thirty days within the jurisdiction of a justice court, and provided the party so convicted is in a precinct having a subcounty jail or calaboose, it shall be lawful for such party so convicted to be employed upon the highways, public roads or streets or avenues of the precinct in which the offense was committed.

Sec. 4. It shall be the duty of the several road overseers of this Territory to receive and work prisoners sentenced to hard labor as heretofore provided and ordered to be employed by the board of supervisors of his county, and said overseer is hereby made a special constable to regulate and control such prisoners so turned over to him for the purposes of this act, provided that such overseer shall not receive any additional compensation to that which he receives as road overseer when working such prisoners.

Sec. 6. Whenever any prisoner who shall be sentenced by any of the courts aforesaid to pay a fine, and to be committed until paid, shall be employed at hard labor pursuant to the foregoing provisions, he shall be allowed the sum of one dollar for each day's labor, to be credited on such fine, and when he shall have earned the amount of such fine he shall be discharged.

Sec. 7. All acts and parts of acts in conflict with this act are hereby repealed.

Sec. 8. This act shall take effect and be in force from and after its passage.

Approved March 14, 1899.

FLORIDA.

ACTS OF 1899.

CHAPTER 4762.—*Seats for employees in mercantile and other business establishments.*

SECTION 1. All merchants, storekeepers, and employers of male or female clerks, salesmen, cash boys, or cash girls, or other assistants in mercantile or other business pursuits requiring such employees to stand or walk during their active duties, be, and are hereby, required to furnish, at their own cost or expense, suitable chairs, stools, or sliding seats attached to the counters or walls for the use of such employees when not engaged in their active work and not required to be on their feet in the proper performance of their several duties; and such merchants, storekeepers, and employers be, and are, required to permit their said employees to make reasonable use of said seats during business hours for purposes of necessary rest, and when such use will not interfere with humane or reasonable requirements of their employment.

Sec. 2. Any merchant, storekeeper, or employer refusing or neglecting to comply with the requirements of section 1 of this act shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, be punished by a fine of not more than one hundred dollars or imprisonment not exceeding sixty days.

Sec. 3. All laws or parts of laws in conflict with any of the provisions of this act are hereby repealed.

Sec. 4. This act shall go into effect immediately upon its passage and signature by the governor.

Approved June 3, 1899.

CHAPTER 4769.—*Convict labor.*

SECTION 4. All persons confined, or who may hereafter be confined in the county jail under sentence of a court for crime, or imprisonment for the nonpayment of costs and fines, and all persons who have been sentenced or may hereafter be sentenced in such county to the county jail for a term of one year or less, shall be worked on the roads of the county: *Provided*, That in any case the number of such persons in any county at any time be less than five, the county commissioners of such county may arrange with the county commissioners of any other county, or counties, for such an exchange of prisoners as will enable each county to thereby increase the number of prisoners at work on its public roads at any given time: *Provided*, Nothing in this act shall be construed to require convicts to be worked upon the public roads when there is no contract between counties to this effect, and the number of such convicts in any county is, in the opinion of the county commissioners, insufficient to justify the employment of guards to work them.

SEC. 5. When the county commissioners of any county shall have made provisions for the expenses of supporting and guarding, while at work on the public roads, a larger number of prisoners than can be supplied from that county, upon the application of the county commissioners of such county, the county commissioners of any other county which has not otherwise provided for the working of their convicts, or otherwise disposed of their convicts, or may hereafter dispose of their convicts, shall deliver to said county, or counties, applying for same, in the order of their application, such convicts as may be confined in the county jail, or hereafter be sentenced to such county jail: *Provided*, That the costs of guarding and maintaining such prisoners shall be paid by the county applying for and receiving the same: *Provided*, That any and all such prisoners from such other counties may, at any time, be returned to the sheriff of such other counties, at the expense of the county having received and used them: *Provided further*, That no convicts shall be sent out of the county in which they have been convicted and sentenced to work to any other county unless a contract for that purpose shall have been entered into by the boards of county commissioners of the respective counties, and arrangements made for their safe-keeping, proper care, and safe return by the employing counties to the county or counties from which such prisoners were sentenced.

SEC. 10. This act shall be in force from and after its approval by the governor.

Approved June 3, 1899.

IDAHO.

ACTS OF 1899.

Appointment and importation of nonresidents as peace officers prohibited.

(Page 9.)

SECTION 1. The governor, the sheriff of any county, any United States marshal or deputy United States marshal, mayor of a city, or other person authorized by law to appoint special deputy sheriffs, special constables, marshals, policemen, or other peace officers in this State to preserve the public peace and prevent or quell public disturbance, shall not hereafter appoint as such special deputy sheriff, special constable, marshal, policeman, or other peace officer any person who is not a citizen of the State of Idaho.

SEC. 2. Any person or persons who shall in this State unlawfully exercise or attempt to exercise the functions of, or hold himself or themselves out to anyone as, a deputy sheriff, marshal, policeman, constable, or peace officer, or any person, whether acting in his own behalf or as an officer of the law, or as the authorized or unauthorized agent or representative of another, or of any association, corporation, or company who shall bring or cause to be brought, or aid in bringing into this State any armed or unarmed police force or detective agency or force, or any armed or unarmed body of men for the suppression of domestic violence, shall be guilty of a felony, and, on conviction thereof, shall be punished by imprisonment in the State prison for not less than two (2) years and not more than five (5) years: *Provided*, That the legislature, or the executive when the legislature can not be convened, may call upon the lawfully constituted authorities of the United States for protection against invasion and domestic violence, as provided in section four (4), article four (4), of the Constitution of the United States.

SEC. 3. Any person, officer, company, association, or corporation who shall knowingly bring, or cause to be brought, or aid in bringing into this State any armed or

unarmed police force, detective agency or force, or armed or unarmed body of men for the suppression of domestic violence, shall be liable in a civil action to any person for any injury to person or property through the action or as the result of the coming or bringing into the State of such body of men, or any of them, whether acting together or separately in carrying out the purpose for which they were brought or came into the State.

SEC. 4. All acts and parts of acts inconsistent with this act are hereby repealed: *Provided*, That nothing contained in this act shall be construed to repeal by implication or otherwise any of the provisions of Chapter IV, of Title I, of Part II, of the penal code of the State.

SEC. 5. Whereas an emergency exists therefor this act shall take effect and be in force from and after its passage.

Approved February 2, 1899.

Convict labor—Penitentiary.

(Page 13.)

SECTION 2. The governor, the secretary of state, and attorney-general be, and the same are hereby, constituted a board of State prison commissioners, of which the governor shall be chairman, and said board shall have the control, direction, and management of the penitentiary of the State, and it shall be the duty of said board either by direct expenditure or by contract with a responsible person or persons to provide for the care, maintenance, and employment of all inmates confined or that may hereafter be confined in the State penitentiary: *Provided*, Said employment shall be within the limits of said penitentiary grounds, if such board shall provide by contract for the care, maintenance, and employment of the inmates of said penitentiary. Authority on behalf of the State is hereby vested with a majority of the members of said board to make and sign said contract and, in such manner as shall, in their judgment, appear to be for the best interests of the State, to arrange all the necessary details thereof, including the cost per diem to the State, the terms and time of payment, and the appointment and compensation of the warden and employees: *Provided*, That no contract shall be let to perform any labor which will conflict with any existing manufacturing industries in the State.

Said board shall have the power to make contract with the lowest responsible bidder, and shall have the privilege of rejecting any and all bids, and any such contract entered into shall provide that the discipline of the convicts shall be under the control of said board and the warden. And no contract shall be made which shall in any wise abridge or deprive the convicts of any privileges granted by law.

SEC. 7 (as amended by act approved March 9, 1899, page 433). The board shall have authority to use the labor of the convicts in the erection of a wall around the penitentiary buildings and grounds, and in the construction of irrigating and water ditches for the purpose of bringing water upon said penitentiary grounds as in the opinion of said board may be necessary for the proper cultivation of said grounds, and in making such other improvements and repairs to said buildings and grounds as they may deem proper and necessary, and in the performance of any labor in and about or in connection with the said penitentiary and penitentiary grounds or lands or works necessary for the improvement thereof.

SEC. 18. No officer or employee of the penitentiary shall be interested directly or indirectly in contracts for furnishing such penitentiary with provisions, clothing, or other articles to be used in any manner by the inmates or for the use of the institution; nor shall any or either of such officers be concerned in, or interested in any manner in contracts for buildings of any kind connected with the penitentiary, or for materials to be used in any such buildings, or in any contract for the labor of any convict; nor shall any officer or employee be permitted to receive in any way any perquisites for themselves or families, or any compensation or reward from any contractor or employee or other person. Should any officer or employee violate or willfully or negligently fail to observe the provisions and prohibitions of this section, he shall be at once dismissed from office by the board of commissioners; and further, upon conviction of such violation by a court of competent jurisdiction, he shall be fined a sum not exceeding one thousand dollars and not less than one month's pay, and shall forfeit his interest in any and all contracts or rewards which he may have received or agree to receive in violation of the provisions of this section.

SEC. 48. Whereas an emergency exists therefor this act shall take effect and be in force from and after its passage.

Approved February 2, 1899.

Employment of aliens on public works.

(Page 71.)

SECTION 3. No person not a citizen of the United States, or who has not declared his intention to become such, or who is not eligible to become such, shall be employed upon any State or municipal works; nor shall any such person be employed by any contractor to work on any public works of the State or any municipality: *Provided*, That any State prisoner may be employed within the State prison grounds and as provided in section 3, article 13, of the constitution.

SEC. 5. It shall hereafter be unlawful for any county government or municipal or private corporation organized under the laws of this State, or organized under the laws of another State or Territory or in a foreign country and doing business in this State, to give employment in any way to any alien who has failed, neglected, or refused, prior to the time such employment is given, to become naturalized or declare his intention to become a citizen of the United States.

SEC. 6. Whenever employment has been innocently given to any alien by any county government, municipal or private corporation mentioned in section 1 of this act, and complaint shall be made in writing by any person to the officers of the county government, or municipal corporation, or general manager, superintendent, foreman, or other agent of the private corporation, having charge or superintendency of the labor of such alien employee, that such employee is an alien, he shall forthwith discharge such employee from employment unless said employee shall produce his declaration to become a citizen, or his certificate of naturalization, or a duly certified copy thereof.

SEC. 7. Any public officer or any county government, or municipal corporation, or any general manager, superintendent, foreman, or other agent of any private corporation, or any contractor or agent of any company engaged in public work, who shall violate any of the provisions mentioned in this act, who shall knowingly give employment to any alien or who, having innocently given such employment, shall, on complaint being made to him by any person, fail or refuse to discharge any such employee forthwith on the failure or refusal of such employee to produce for his inspection and the inspection of the complainant his declaration of intentions to become a citizen, or certificate of naturalization as provided in section 2 of this act, shall be deemed guilty of a misdemeanor.

SEC. 8. Whereas an emergency exists this act shall take effect and be in force from and after its passage.

Approved February 2, 1899.

Hours of labor—Public works.

(Page 113.)

SECTION 1. Not more than eight hours actual work shall constitute a lawful day's work on all State, county, and municipal works: *Provided*, That nothing in this act contained shall be construed as meaning any labor except manual labor, employed by the day, and nothing in this act contained shall apply to State, county, or municipal officials, or to any employees of the State, or any county or municipality, who are paid monthly or yearly salaries.

SEC. 2. Any and all bids for work on public buildings or other public works of the State, or of any county or municipality of the State, shall expressly state and declare that all laborers and mechanics employed by the day on such buildings or public works, or in the preparation of materials to be directly used for or in the construction of such buildings or public works, shall be employed on the basis of eight hours as a lawful day's work.

SEC. 3. Whereas an emergency exists therefor this act shall take effect and be in force from and after its passage.

Approved February 6, 1899.

Repeal of act creating office of boiler inspector, etc.

(Page 180.)

SECTION 1. An act entitled "An act creating the office of boiler inspector for the State of Idaho and defining his duties, powers, and liabilities, and fixing his salary and mileage, and providing for the examination and licensing of engineers, and prescribing the duties and liabilities thereof," approved February 23, 1893, is hereby repealed.

SEC. 2. An emergency existing therefor this act shall be in force from and after its passage.

Approved February 9, 1899.

Injuring and obstructing railroads, etc.

(Page 182.)

SECTION 1. Any person or persons who shall willfully or maliciously place any obstruction on any railroad track or roadbed or street-car track in this State, or who shall loosen, tear up, remove, or misplace any rail, switch, frog, guard rail, cattle guard, or any part of such railroad track or roadbed or street-car track, or who shall tamper with or molest any such road, roadbed, or track, or who shall destroy or damage any locomotive, motor, or car on said track, or who shall otherwise interfere with the maintenance or operation of such road so as to endanger the safety of any train, car, motor, or engine, or so as to endanger or injure any passenger or person riding thereon or being about the same, shall, upon conviction thereof, be punished by imprisonment in the penitentiary for any term not exceeding twenty years nor less than five years.

SEC. 2. Any person or persons who shall within this State willfully or maliciously place any obstruction upon any railroad track or roadbed or street-car track, or shall misplace, remove, obstruct, detach, damage, or destroy any rail, switch, frog, guard rail, cattle guard, or any other part of such railroad track or roadbed or street-car track, or who shall otherwise interfere with the maintenance and operation of such road, thereby causing the death of any person, whether passenger or employee of such railroad, or street railway, or otherwise, shall, upon conviction thereof, be deemed guilty of a felony and be punished by imprisonment in the penitentiary for a term not less than five years and which may extend to the natural life of such person so found guilty, or may be tried and punished for murder; but this section shall not in any way lessen the liability of the railroad company where a wreck may hereafter occur in the State of Idaho.

SEC. 3. Whereas an emergency is declared to exist this act shall take effect and be in force from and after its approval by the governor.

Approved February 9, 1899.

Public printing to be done within the State.

(Page 183.)

SECTION 1. All printing, binding, and stationery work executed for or on behalf of the State, and for which the State contracts or becomes in any way responsible for, shall be executed within the State of Idaho, except as provided in section 3.

SEC. 2. All county printing, binding, and stationery work, executed for or on behalf of the several counties throughout the State for which the said counties contract or become in any way responsible, shall be executed within the county for which said work is done, when there are practicable facilities within the said county for executing the same; but when it shall become necessary, from want of proper facilities, to execute the work without the said county, then the same shall be executed at some place within the State of Idaho, except as provided in section 3.

SEC. 3. Whenever it shall be established that any charge for printing, binding, or stationery work is in excess of the charge usually made to private individuals for the same kind and quality of work, then the State or county officer or officers having such work in charge shall have power to have such work done outside of said county or State, but nothing in this act shall be construed to oblige any of said officers to accept any unsatisfactory work.

SEC. 4. All contracts entered into in violation of the provisions of this act shall be void.

SEC. 5. All acts or parts of acts in conflict with the provisions of this act are hereby repealed.

SEC. 6. Whereas an emergency exists therefor this act shall take effect and be in force from and after its passage.

Approved February 9, 1899.

Protection of employees as members of labor organizations.

(Page 221.)

SECTION 1. It shall be unlawful for any person, firm, or corporation to make or enter into any agreement, either oral or in writing, by the terms of which any

employee of such person, firm, or corporation, or any person about to enter the employ of such person, firm, or corporation, as a condition for continuing or obtaining such employment, shall promise or agree not to become or continue a member of a labor organization.

Sec. 2. Any person or persons or corporation violating the provisions of section 1 of this act shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not less than fifty or more than three hundred dollars, or be imprisoned in the county jail for not more than six months, or by both such fine and imprisonment.

Sec. 3. Whereas an emergency exists therefor this act shall take effect and be in force from and after its passage.

Approved February 10, 1899.

Inspector of mines, etc.

(Page 221.)

SECTION 1. The office of inspector of mines for the State of Idaho is hereby created.

Sec. 2. The inspector of mines shall receive as full compensation for his services a salary of twelve hundred dollars per annum, and ten cents a mile for each mile actually traveled in the discharge of his official duties, and all necessary expenses for clerk hire, postage, stationery, printing, and the compensation of deputies: *Provided*, The total amount of such mileage and expense shall not exceed the sum of two thousand dollars for any one year; such compensation to be paid as the salary and fees of other State officers are paid. He shall hold his office for the term of two years, or until his successor is appointed and qualified. Before entering upon the discharge of his duties as inspector of mines he shall file an official bond in the sum of five thousand dollars, conditioned for the faithful performance of the duties of his office, in form and manner as are other official bonds of State officers.

Sec. 3. The inspector of mines shall not at the time of his appointment or any time during his term of office be an officer, director, or employee in or of any mining corporation in this State, or in or of any milling corporation in the State engaged in the business of smelting or reducing ores; and such inspector shall devote his whole time to the duties of his office and shall take and subscribe to the following oath:

State of Idaho, } ss.
County of ———.

I, of ——— County, do solemnly swear that I will perform each and every duty required of me as inspector of mines for the State of Idaho; that I will at all times while acting in my official capacity fulfill the duties of such office according to law and to the best of my skill and understanding; that I will never at any time while holding the office of inspector of mines disclose to anyone, directly or indirectly, under any circumstances, any information relative to ore bodies, chutes, or deposits of ore, or the location, course, or character of underground workings, or give my opinion founded on any examination made in the performance of my official duties relative to the value of any mine or mining property, unless by permission of the person or persons in charge of the same, to all of which I pledge my sacred honor. So help me God.

Nothing in said oath, however, shall be construed to prevent such mining inspector from making full and complete statistical reports as required by law.

Sec. 4. It shall be the duty of the inspector of mines, at least once each year, to visit in person each mining county in the State of Idaho and examine all such mines therein as, in his judgment, may require examination for the purpose of determining the condition of such mines as to safety, and to collect information and statistics relative to mines and mining and the mineral resources of the State, and to collect, arrange, and classify mineral and geological specimens found in this State and to forward the same to the State school of mines.

Sec. 5. Said inspector shall have full power and authority, at all reasonable hours, to enter and examine any and all mines in this State, and shall have the right to enter into any and all mine stopes, levels, winzes, tunnels, shafts, drifts, crosscuts, workings, and machinery for the purpose of such examination; and the owner, lessor, lessee, agent, manager, or other person in charge of such mine or mines shall render the inspector such assistance as may be required by the inspector to enable him to make a full, thorough, and complete examination of each and every part of such mine or mines, and whenever, as a result of the examination of any mine (whether such examination is made in consequence of a complaint, as hereinafter provided, or otherwise) the inspector shall find the same to be in an unsafe condition, he shall at once serve or cause to be served a written notice upon

the owner, lessor, lessee, agent, manager, or other person in charge of such mine, stating in detail in what particular or particulars the mine is dangerous or insecure, and shall require all necessary changes to be made without delay, for the purpose of making said mine safe for the employees therein. Upon the neglect or refusal of any owner, lessor, lessee, agent, manager, or other person in charge so notified to comply with the requirements stated in such notice so served such owner, lessor, lessee, agent, manager, or other person in charge of such mine shall be deemed guilty of a misdemeanor, and is punishable by a fine of not more than five hundred dollars, and each day's continuance of such neglect or refusal shall be a separate offense, and in case of any criminal or civil proceeding at law against the party or parties so notified, on account of the loss of life, or bodily injury sustained by any employee subsequent to the service of such notice, and in consequence of a neglect or refusal to obey the inspector's requirement, a certified copy of the notice served by the inspector shall be prima facie evidence of the culpable negligence of the party or parties so notified.

SEC. 6. The inspector of mines shall be provided with a properly furnished office, at the statehouse in Boise City, Idaho, in which he shall carefully keep a complete record of all mines examined, showing the date of examination, the condition in which the mines were found, the manner and method of working, the extent to which the laws are obeyed, and what recommendations, if any, were ordered by the inspector.

It is hereby made the duty of the owner, lessor, lessee, agent, manager, or other person in charge of each and every mine, of whatever kind or character, within the State to forward to the inspector of mines at his office, not later than the first day of June in each year, a detailed report showing the character of the mine, the number of men then employed, and the estimated maximum number of men to be employed therein during the ensuing year, the method of working such mine and the general condition thereof, and such owner, lessor, lessee, agent, manager, or other person in charge of any mine within the State must furnish whatever information relative to such mine as the inspector of mines may from time to time require for his guidance in the proper discharge of his official duties.

SEC. 7. Whenever the inspector of mines shall receive a formal complaint in writing, signed by three or more persons, setting forth that the mine in which they are employed is dangerous in any respect, he shall, in person, visit and examine such mine: *Provided*, Every such formal complaint shall in all cases specifically set forth the nature of the danger existing at the mine and shall describe with as much certainty as is possible how much danger, apparent or real, renders such mine dangerous, and shall set forth the time when such danger was first observed, and shall distinctly set forth whether or not any notice of such defect or danger has been given by the complainants or anyone else to their knowledge to the superintendent or other person in charge of such mine, and if no such complaint has been made to such superintendent or other person in person in charge the reason why it has not been made: *And provided further*, That all complaints shall be duly verified by the parties complaining before some officer authorized by law to administer oaths. After such complaint shall have been received by the inspector of mines, it shall be the duty of such inspector to serve a certified copy thereof, but without the names of the complainants, upon the owner, lessor, lessee, agent, manager, or other person in charge, and, as soon as possible after receiving such complaint to visit and examine such mine, and if from such examination he shall find such complaint to be just, he shall give notice in writing of the danger existing to the owner, lessor, lessee, agent, manager, or other person in charge thereof, and in such notice may, in his discretion, order such mine or workings in which such danger exists closed until such danger has been removed. The names of complainants complaining as in this section provided shall not under any circumstances be divulged to any person by said inspector, except such action be necessary in the administration of justice in the courts of the State.

SEC. 8. And it shall be the duty of the inspector of mines upon the neglect or refusal of any owner, lessor, lessee, agent, manager, or other person in charge of any mine or working, notified of the unsafe or dangerous condition of his mine, promptly to comply with the requirements of the notice served upon him, to at once notify the attorney-general of such neglect or refusal, and the attorney-general must thereupon immediately commence action in the name of the State against the party so notified for the recovery of the penalty mentioned in section 5, in any court of competent jurisdiction, and the amount so recovered shall be paid into the general school fund of the State and constitute a part thereof.

SEC. 9. With the consent and approval of the governor, the inspector of mines may appoint such deputy inspectors as in his judgment may be necessary. Such deputy inspectors shall be allowed as full compensation for all services five dollars per day for each day actually engaged in the performance of their duties.

Sec. 10. Whenever a serious or fatal accident shall occur in any mine in the State of Idaho, it shall be the duty of the owner, lessor, lessee, agent, manager, or other person in charge thereof, immediately and by the quickest means, to notify the inspector of mines or his deputy, as may be most convenient, of such accident; and upon receiving such notice the inspector or his deputy, or both, shall at once repair to the place of the accident and investigate fully the cause of such accident; and the inspector or his deputy shall be present at any coroner's inquest held over the remains of any person or persons killed in any such accident, and shall have power at such inquest to examine and cross-examine witnesses, and may have process to compel the attendance of necessary witnesses at such inquest. If the inspector or deputy inspector can not be immediately present in case of a fatal or serious accident occurring, it shall be the duty of the owner, lessor, lessee, agent, manager, or other person in charge of the mine in which such accident has occurred, to have statements made and verified by those witnessing such accident; in case of no person being present at the time of the accident, then the statement of those first present thereafter shall be taken, which statement shall be verified, and such verified statements shall be placed in the hands of the inspector or deputy inspector, upon the demand of such officer. Whenever any deputy inspector is present at any coroner's inquest and assists in the examination, he shall at the conclusion thereof at once prepare and forward to the inspector a full and detailed report of the accident, giving all information obtainable regarding the same.

Sec. 11. The duties of deputy inspectors shall only be such as are indicated in section 10 of this act; that is, to attend and act either with or in place of the inspector of mines in cases of accident, at the scene of such accident, and at coroner's inquests, and to make reports.

Sec. 12. The inspector of mines shall, on the first Monday of December of each year, file with the governor of the State a printed report giving:

First. A list of all accidents that have occurred during the year, the nature and cause of the same, together with the persons killed and injured.

Second. The number of mines visited or examined during the year; the number of mines in operation; the number of mines idle; the number of men employed; the wages paid, and the nationality of employees.

Third. The name and location of each mine in the State, which has been examined and from which the inspector has received a report as provided in section 6 of this act, and all data possible in regard to the manner of working the same; whether by shaft, tunnel, incline, or otherwise; the condition of the hoisting machinery, boilers, whims, engines, cars, buckets, ropes, and chains used in the mines; also the appliances used for the extinguishing of fires; the manner and method of working and timbering the shafts, drifts, inclines, stopes, winzes, tunnels, and upraises through which persons pass to and fro while engaged in their daily labor; the character of the exits from the mine, the methods of ventilation, and the system of signals used in the mine.

Fourth. The number and character of notices served, together with suggestions and recommendations made; the manner in which such suggestions and recommendations were complied with.

Fifth. The number of complaints received and actions therein.

Sixth. The number of prosecutions for neglect or refusal to comply with notices.

Seventh. A summary of the reports received from mine owners and deputy inspectors.

Eighth. A full statement containing all available statistical and other information calculated to exhibit the mineral resources of the State and to promote the development of the same.

Ninth. Generally, such other information and suggestions as may be deemed advisable.

Sec. 13. At the next general election held in this State, and biennially thereafter, the office of inspector of mines mentioned in this act shall be filled by election by the qualified electors of the State of Idaho as other State officers.

Sec. 14. An emergency existing therefor this act shall take effect and be in force from and after its passage.

Approved February 14, 1899.

Convict labor—Jails.

(Page 253.)

SECTION 1. Every male prisoner 18 years of age or over, who shall hereafter be legally imprisoned in any county jail upon conviction of misdemeanor, shall be liable to and shall be required to perform manual labor in and about the jail or court-house

of the county, for the betterment, improvement, cleanliness, or maintenance of the jail or court-house or the grounds upon which either of the same is located, not to exceed eight hours for each day of his imprisonment, Sundays and legal holidays excepted; and such manual labor to be so performed shall in all cases be taken and be deemed to be included in and a part of all judgments hereafter given or made directing the imprisonment of such persons in a county jail.

SEC. 2. The county commissioners of each county are hereby empowered, and it is their duty, to make orders and to prescribe proper rules and regulations consistent with economy and the safe guarding of such prisoners, for the employment of all prisoners referred to in the preceding section.

SEC. 3. The sheriff of each county is hereby required, and it is his duty, to faithfully observe and carry out all the orders, rules, and regulations of the county commissioners of his county, made or given for the employment of prisoners in his charge as herein provided.

SEC. 4. No prisoner liable to employment as herein provided shall be exempt therefrom except by reason of physical disability.

SEC. 5. Whereas an emergency exists this act shall take effect and be in force from and after its passage.

Approved February 14, 1899.

Trade-marks of trade unions, etc.

(Page 316.)

SECTION 1. Whenever any person, or any association or union of workingmen, has heretofore adopted or used, or shall hereafter adopt or use, any label, trade-mark, term, design, device, or form of advertisement for the purpose of designating, making known, or distinguishing any goods, wares, merchandise, or other products of labor, as having been made, manufactured, produced, prepared, packed, or put on sale by such person or association or union of workingmen, or by a member or members of such association or union, it shall be unlawful to counterfeit or imitate such label, trade-mark, term, design, device, or form of advertisement, or to use, sell, offer for sale, or in any way utter or circulate any counterfeit or imitation of any such label, trade-mark, term, design, device, or form of advertisement.

SEC. 2. Whoever counterfeits or imitates any such label, trade-mark, term, design, device, or form of advertisement, or sells, offers for sale, or in any way utters or circulates any counterfeit or imitation of any such label, trade-mark, term, design, device, or form of advertisement, or keeps or has in his possession with intent that the same shall be sold or disposed of, any goods, wares, merchandise, or other product of labor to which or on which any such counterfeit or imitation is printed, painted, stamped, or impressed; or knowingly sells or disposes of any goods, wares, merchandise, or other product of labor contained in any box, case, can, or package to which or on which any such counterfeit or imitation is attached, affixed, printed, painted, stamped, or impressed; or keeps, or has in his possession, with intent that the same shall be sold or disposed of, any goods, wares, merchandise, or other product of labor in any box, case, can, or package to which or on which any such counterfeit or imitation is attached, affixed, printed, painted, stamped, or impressed shall be guilty of a misdemeanor and be punished by a fine of not more than one hundred dollars, or by imprisonment for not more than three months.

SEC. 3. Every such person, association, or union that has heretofore adopted or used, or shall hereafter adopt or use, a label, trade-mark, term, design, device, or form of advertisement, as provided in section 1 of this act, may file the same for record in the office of the secretary of state, by leaving two copies, counterparts or facsimiles thereof, with said secretary, and by filing therewith a sworn application specifying the name or names of the person, association, or union on whose behalf such label, trade-mark, term, design, device, or form of advertisement shall be filed; the class of merchandise and a description of the goods to which it has been, or is intended to be, appropriated, stating that the party so filing, or on whose behalf such label, trade-mark, term, design, device, or form of advertisement shall be filed, has the right to the use of the same; that no other person, firm, association, union, or corporation has a right to such use, either in the identical form or in any such near resemblance thereto as may be calculated to deceive, and that the facsimiles or counterparts filed therewith are true and correct. There shall be paid for such filing and recording a fee of one dollar. Said secretary shall deliver to such person, association, or union so filing or causing to be filed any such label, trade-mark, term, design, device, or form of advertisement so many duly attested certificates of the recording of the same as such person, association, or union may apply for, for each of which certificates said secretary shall receive a fee of one dollar. Any such cer-

tificate of record shall, in all suits and prosecutions under this act, be sufficient proof of the adoption of such label, trade-mark, term, design, device, or form of advertisement. Said secretary of state shall not record for any person, union, or association any label, trade-mark, term, design, device, or form of advertisement that would probably be mistaken for any label, trade-mark, term, design, device, or form of advertisement theretofore filed by, or on behalf of, any other person, union, or association.

SEC. 4. Any person who shall for himself or on behalf of any other person, association, or union procure the filing of any label, trade-mark, term, design, or form of advertisement in the office of the secretary of state, under the provisions of this act, by making any false or fraudulent representations or declarations, verbally or in writing, or by any fraudulent means, shall be liable to pay any damages sustained in consequence of any such filing, to be recovered by or on behalf of the party injured thereby in any court having jurisdiction, and shall be guilty of misdemeanor and be punished by a fine not exceeding one hundred dollars or by imprisonment not exceeding three months.

SEC. 5. Every such person, association, or union adopting or using a label, trade-mark, term, design, device, or form of advertisement as aforesaid may proceed by suit to enjoin the manufacture, use, display, or sale of any counterfeits or imitations thereof, and all courts of competent jurisdiction shall grant injunctions to restrain such manufacture, and may award the complainant in any such suit damages resulting from such manufacture, use, sale, or display, as may be by the said court deemed just and reasonable, and shall require the defendants to pay to such persons, association, or union all profits derived from such wrongful manufacture, use, display, or sale, and such court shall also order that all such counterfeits or imitations in the possession or under the control of any defendant in such cause be delivered to an officer of the court, or to the complainant to be destroyed.

SEC. 6. Every person who shall use or display the genuine label, trade-mark, term, design, device, or form of advertisement of any such person, association, or union, in any manner, not being authorized so to do by such person, union, or association, shall be deemed guilty of a misdemeanor, and shall be punished by imprisonment for not more than three months or by fine of not more than one hundred dollars (\$100.00). In all cases when such association or union is not incorporated, suits under this act may be commenced and prosecuted by an officer or members of such association or union on behalf of, and for the use of such association or union.

SEC. 7. Any person or persons who shall in any way use the name or seal of any such person, association, or union, or officer thereof, in and about the sale of goods or otherwise, not being authorized to so use the same, shall be guilty of a misdemeanor, and shall be punishable by imprisonment for not more than three months or by a fine of not more than one hundred dollars.

SEC. 8. Whereas an emergency exists therefor this act shall be in force from and after its passage and approval.

Approved February 18, 1899.

Arbitration of labor disputes.

(Page 319.)

SECTION 1. The governor, with the advice and consent of the senate, shall, on or before the 4th day of March, eighteen hundred and ninety-seven [sic], appoint three competent persons to serve as a State board of arbitration and conciliation in the manner hereinafter provided. One of them shall be an employer or selected from some association representing employers of labor; one of them shall be selected from some labor organization and not an employer of labor; the third shall be appointed upon the recommendation of the other two: *Provided, however,* That if the two appointed do not agree on the third man at the expiration of thirty days, he shall then be appointed by the governor. On or before the 4th day of March, eighteen hundred and ninety-seven [sic], the governor, with the advice and consent of the senate, shall appoint three members of said board in the manner above provided; one to serve for six years, one for four years, and one for two years, or until their respective successors are appointed; and on or before the fourth day of March of each year during which the legislature of this State is in its regular biennial session thereafter, the governor shall in the same manner appoint one member of said board to succeed the member whose term then expires and to serve for the term of six years or until his successor is appointed. If a vacancy occurs at any time, the governor shall in the same manner appoint some one to serve out the unexpired term; and he may in like manner remove any member of said board. Each member of said board shall,

before entering upon the duties of his office, be sworn to a faithful discharge thereof. They shall at once organize by the choice of one of their members as chairman. Said board shall choose one of its members as secretary and may also appoint and remove a clerk of the board, who shall receive pay only for time during which his services are actually required, and that at a rate of not more than four dollars per day during such time as he may be employed.

SEC. 2. The board shall, as soon as possible after its organization, establish such rules of procedure as shall be approved by the governor and senate.

SEC. 3. Whenever any controversy or difference, not involving questions which may be the subject of a suit at law or bill in equity, exists between an employer, whether an individual, copartnership, or corporation, and his employees, if at the time he employs not less than twenty-five persons in the same general line of business in any city or town or village or county in this State, the board shall, upon application as hereinafter provided, and as soon as practicable thereafter, visit the locality of the dispute and make careful inquiry into the cause thereof, hear all persons interested therein who may come before them, advise the respective parties what, if anything, ought to be done or submitted to by either or both to adjust said dispute, and make a written decision thereof. This decision shall at once be made public, shall be recorded upon proper books of record to be kept by the secretary of said board, and a short statement thereof published in the annual report hereinafter provided for, and the said board shall cause a copy thereof to be filed with the county recorder of the county where such business is carried on.

SEC. 4. Said application shall be signed by said employer or by a majority of his employees in the department of the business in which the controversy or difference exists, or their duly authorized agent, or by both parties, and shall contain a concise statement of the grievance complained of and a promise to continue in the business or at work without any lockout or strike until the decision of said board, if it shall be made in three weeks of the date of filing said application. When an application is signed by an agent claiming to represent a majority of such employees, the board shall satisfy itself that such agent is duly authorized in writing to represent such employees, but the names of the employees giving such authority shall be kept secret by said board. As soon as may be after the receipt of said application, the secretary of said board shall cause public notice to be given of the time and place for the hearing thereof; but public notice need not be given when both parties to the controversy join in the application and present therewith a written request that no public notice be given. When such request be made, notice shall be given to the parties interested in such manner as the board may order, and the board may, at any stage of the proceedings, cause public notice to be given, notwithstanding such request. Should the petitioner or petitioners fail to perform the promise made in said application, the board shall proceed no further thereupon without the written consent of the adverse party. The board shall have the power to summons as witness any operative in the departments of business affected, and any person who keeps the records of wages earned in those departments, and to examine them under oath, and to require the production of books containing the record of wages paid. Summons may be signed and oaths administered by any member of the board.

SEC. 5. Upon the receipt of such application and after such notice the board shall proceed as before provided and render a written decision, which shall be open to public inspection; shall be recorded upon the records of the board and published at the discretion of the same in an annual report to be made to the governor of the State on or before the first day of February of each year.

SEC. 6. Said decision shall be binding upon the parties who join in said applications for six months, or until either party has given the other notice in writing of his intention not to be bound by the same at the expiration of sixty days therefrom. Said notice may be given to said employees by posting the same in three conspicuous places in the shop or factory, mill, or at the mine where they work or are employed.

SEC. 7. The parties to any controversy or difference, as described in section 3 of this act, may submit the matters in dispute, in writing, to a local board of arbitration and conciliation. Such board may either be mutually agreed upon, or the employer may designate one of the arbitrators, the employees or their duly authorized agent, another, and the two arbitrators so designated may choose a third, who shall be chairman of the board.

Such board shall, in respect to the matters referred to it, have and exercise all the powers which the State board might have and exercise, and its decision shall have whatever binding effect may be agreed by the parties to the controversy in the written submission.

The jurisdiction of such board shall be exclusive in respect to the matters submitted to it, but it may ask and receive the advice and assistance of the State board.

The decision of such board shall be rendered within ten days of the close of any hearing held by it; such decision shall at once be filed with the recorder of the county in which the controversy or difference arose, and a copy thereof shall be forwarded to the State board. Each of such arbitrators shall be entitled to receive from the treasury of the county in which the controversy or difference that is the subject of the arbitration exists, if such payment is approved in writing by the board of commissioners of such county, the sum of three dollars for each day of actual service, not exceeding ten days for any one arbitration. Whenever it is made to appear to the mayor of a city or the board of commissioners of a county that a strike or lockout, such as described in section 8 of this act, is seriously threatened or actually occurs, the mayor of such city or the board of commissioners of such county shall at once notify the State board of the facts.

SEC. 8. Whenever it shall come to the knowledge of the State board, either by notice from the mayor of a city or the board of commissioners of a county, as provided in the preceding section or otherwise, that a strike or lockout is seriously threatened or has actually occurred in any county or town of the State involving an employer and his present or past employees, if at the time he is employing, or up to the occurrence of the strike or lockout was employing, not less than twenty-five persons in the same general line of business in any county or town in the State, it shall be the duty of the State board to put itself in communication as soon as may be with such employer and employees, and endeavor by mediation to effect an amicable settlement between them, or to endeavor to persuade them: *Provided*, That a strike or lockout has not actually occurred, or is not then continuing, to submit the matters in dispute to a local board of arbitration and conciliation, as above provided, or to the State board; and said State board may, if it deems it advisable, investigate the cause or causes of such controversy and ascertain which party thereto is mainly responsible or blameworthy for the existence or continuance of the same, and may make and publish a report finding such cause or causes and assigning such responsibility or blame. The board shall have the same powers for the foregoing purposes as are given it by section 3 of this act.

SEC. 9. Witnesses summoned by the State board shall be allowed the sum of fifty cents for each attendance and the sum of twenty-five cents for each hour of attendance in excess of two hours, and shall be allowed five cents a mile for travel each way from their respective places of employment or business to the place where the board is in session. Each witness shall certify in writing the amount of his travel and attendance, and the amount due him shall be paid forthwith by the board, and for such purpose the board shall be entitled to draw from the treasury of the State for the payment thereof any of the unappropriated moneys of the State.

SEC. 10. The members of said board shall be paid six dollars per day for each day that they are actually engaged in the performance of their duties, to be paid out of the treasury of the State, and they shall be allowed their necessary traveling and other expenses, which shall be paid out of the treasury of the State.

SEC. 11. Whereas an emergency exists therefor this act shall take effect and be in force from and after its passage.

Approved February 18, 1899.

Attorneys' fees in suits for wages.

(Page 394.)

SECTION 1. Whenever a mechanic, artisan, miner, laborer, servant, or employee shall have cause to bring suit for wages earned and due, according to the terms of his employment, and shall establish by the decision of the court or verdict of the jury that the amount for which he has brought suit is justly due, and that a demand has been made in writing at least fifteen days before suit was brought for a sum not to exceed the amount so found due, then it shall be the duty of the court before which the case shall be tried to allow to the plaintiff a reasonable attorney's fee in addition to the amount found due for wages, to be taxed as costs of suit. In a justice's court such attorney's fee shall not be more than five dollars, and in the district court not more than ten dollars, except in cases on appeal from justice's court, when the plaintiff may recover an attorney's fee not exceeding twenty-five dollars.

SEC. 2. Whereas an emergency exists therefor this act shall take effect and be in force from and after the time of its passage.

Approved February 16, 1899.

Bureau of immigration, labor, and statistics.

(Page 394.)

SECTION 1. In conformity with the requirements of section 1, article 13, of the constitution of the State of Idaho, a bureau of immigration, labor, and statistics for the State is hereby established.

SEC. 2. It shall be the duty of the governor, by and with the consent of the senate, to appoint immediately after the passage of this act a competent person as commissioner of immigration, labor, and statistics, who shall have charge of said bureau, and who shall hold his office for the term provided in said article 13 of the constitution. He shall receive a salary of \$1,800 per year and all necessary traveling expenses, not exceeding \$600 per annum, while traveling in the discharge of his official duties, to be paid as is the salary and fees of other State officers. Before entering upon the duties of his office he shall take oath for the faithful discharge of the duties thereof, the same as other State officers. The secretary of state shall provide suitable room for the use of said bureau, and furnish the necessary fuel, light, and appurtenances. All books, papers, and documents in the office of said commissioner shall be deemed public records of the State, and shall be transferred by him to his successor in office.

SEC. 3. It shall be and is hereby made the duty of said commissioner to collect and compile all reliable data and information at his command concerning the climate, soil, and various resources of the State; its agricultural, horticultural, mineral, timber, and grazing lands and industries, and the development thereof; the water courses and lakes of the State in reference to irrigation, manufacturing, mechanical, and other uses; the various crop products and the adaptability of different soils and localities for the production of different crops; the number, kinds, and values of domestic animals in the State, with the useful information regarding the same; the number of public schools, educational institutions, churches, charitable and fraternal organizations; health and pleasure resorts and health statistics of the State; the number and mileage of railroads and other transportation lines; the number and capacity of irrigation canals and the lands covered by the same; the number and location of newspapers and periodicals in the State; the amount of public and school lands and that belonging to various public institutions of the State; the wages and hours of labor, both skilled and common, and its relation to capital; and, generally, any information which, if disseminated abroad, would tend to the development of the State by inducing population and capital within its borders. Said commissioner shall also inform himself in regard to suitable locations for agricultural and horticultural colonies in the State, and use all facilities at his command for encouraging and promoting desirable enterprises of this kind. To this end he shall endeavor to secure low rates of transportation favorable to immigrants by urging the cooperation of railroads and other corporations interested in the settlement of the State. He shall also open correspondence with and answer any and all inquiries from those seeking information in regard to the resources of the State.

SEC. 4. In order to enable said commissioner to secure the above-required information, he is hereby clothed with the power to call upon officers of State, county assessors, superintendents of public instruction, and other officers for such information as he may desire and deem valuable in his department.

SEC. 5. It shall be the duty of the commissioner to keep in his office for exhibit such samples of the productions of the State, including grains, grasses, fruits, vegetables, minerals, manufactured articles, and other products, as may be contributed by town and counties, without expense to the State, the same to be arranged so that each town or county shall receive due credit therefor. He shall, whenever practicable, organize and encourage local exhibits at such points as would tend to advertise the resources of the State, and, whenever funds are available for such purposes, shall also make, or cause to be made, exhibits of the products and industries of the State at such industrial and international exhibitions in other States as the governor shall direct.

SEC. 6. Said commissioner shall cause to be printed and distribute such pamphlets, circulars, cards, and maps, and to publish, from time to time, through the public press, such information as, in the judgment of said commissioner, would tend to carry out the objects sought by this act and result in the largest possible benefit to the State.

SEC. 7. Said commissioner shall receive the salary and mileage heretofore provided for, and be allowed the actual cost of the printing and supplies necessary for the publication and distribution of the matter heretofore mentioned: *Provided*, That the allowance for such printing and supplies shall not exceed the aggregate sum of two thousand dollars in any one year.

SEC. 8. The commissioner shall, on or before the first day of January in each year, transmit to the governor a full and complete report of the doings of his office (including a tabulated statement of all statistics accumulated in his office) and a detailed and itemized account of the expenses thereof.

SEC. 9. The commissioner shall collect information upon the subject of labor, its relation to capital, the hours of labor, and the earnings of laboring men and women, and the means of promoting their material, social, intellectual, and moral prosperity, and assort, systematize, print, and present in annual reports to the governor, on or before the first day in January of each year, statistical details relating to all departments of labor in this State, including the penal institutions thereof, particularly concerning hours of labor, the number of laborers and mechanics employed, the number of apprentices in each trade, with the nativity of such laborers, mechanics, and apprentices; wages earned, the savings from the same; the culture, moral and mental, with age and sex of laborers employed, and number and character of accidents; the sanitary condition of institutions and other places where labor is employed, as well as the influence of the several kinds of labor, and the use of intoxicating liquors upon the health and mental condition of the laborer; the restrictions, if any, which are put upon apprentices when indentured; the proportion of married laborers and mechanics who live in rented houses, with the annual rental of same; the average number of members in the families of married laborers and mechanics; the value of property owned by laborers and mechanics, together with the value of property owned by such laborers and mechanics (if foreign born) upon their arrival in this country, and the length of time they have resided here; the subject of cooperation, strikes, or other labor difficulties, trade unions, and other labor organizations, and their effects upon labor and capital, with such other matter relating to the commercial, industrial, and sanitary condition of the laboring classes, and permanent prosperity of the respective industries of the State, as such bureau may be able to gather, accompanied by such recommendations relating thereto as the bureau shall deem proper.

SEC. 10. That the sum of \$7,500, or so much thereof as may be necessary, is hereby appropriated out of any money in the treasury, not otherwise appropriated, for the salary of said commissioner and the expenses of his office, as in this act provided, for the period of two years from and after this act shall take effect.

SEC. 11. Whereas an emergency exists this act shall take effect and be in force from and after its passage.

Approved March 2, 1899.

KANSAS.

ACTS OF 1899.

CHAPTER 24.—*Convict labor—Penitentiary twine plant.*

SECTION 1. The warden of the Kansas State penitentiary is hereby empowered, by and with the advice and approval of the board of directors of the Kansas State penitentiary, at a cost of not exceeding thirty-five thousand dollars, to purchase, erect, and maintain the necessary machinery and equipments for the manufacture of twines known as hard-fiber twine, and for the necessary repairs and betterments of the buildings for the purposes herein named.

SEC. 2. The warden of the Kansas State penitentiary, by and with the advice and approval of the board of directors of the Kansas State penitentiary, is hereby empowered to purchase a three hundred horsepower engine of approved pattern and design, together with boilers of sufficient capacity to operate the same, to be used in the operation of said plant.

SEC. 3. There is hereby appropriated, out of any funds in the State treasury not otherwise appropriated, for the purposes set forth in sections 1 and 2 of this act, the sum of forty thousand dollars.

SEC. 4. There is hereby appropriated, out of any funds in the State treasury not otherwise appropriated, the sum of one hundred and fifty thousand dollars, which shall be known as a revolving fund, which said fund shall be used only for the purpose of purchasing of raw material to be used in the manufacture of binding twine, as herein provided, and for the purpose of carrying, handling, and marketing the manufactured product until disposed of according to the provisions of this act.

SEC. 5. The money in said revolving fund shall be paid by the State treasurer upon warrants issued by the auditor of state upon verified vouchers of the warden of the Kansas State penitentiary.

SEC. 6. All moneys derived from the sale of the manufactured product shall be collected by the warden, who shall convert the same into the State treasury to the

credit of the revolving fund created by this act, and it is hereby made the duty of the said treasurer of state to carry as a separate account upon the books of his office the said revolving fund, which said fund shall be used for the payment of warrants drawn against the same by the warden of said penitentiary without further appropriation.

Sec. 7. Upon the installation of said plant and the deposit of the said one hundred and fifty thousand dollars in the State treasury to the credit of the said revolving fund, the said warden of the Kansas State penitentiary shall enter into a good and sufficient bond to the State of Kansas (to be approved by the governor) in the sum of one hundred thousand dollars, conditioned that he will faithfully perform the duties of his office and faithfully and promptly account for and pay over all moneys which may come into his possession from the sale of the manufactured product or for use in the purchase of raw material.

Sec. 8. Said warden of the Kansas State penitentiary, by and with the approval of the board of directors thereof, is hereby vested with power and authority to sell and dispose of to the best advantage of the State, giving preference to orders from residents of this State, all the manufactured product of said plant.

Sec. 9. This act shall take effect and be in force from and after its publication in the official State paper.

Approved February 21, 1899.

Published in official State paper March 1, 1899.

CHAPTER 26.—*Convict labor—Penitentiary.*

SECTION 5. The sum of four thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any money in the State treasury not otherwise appropriated, to the penitentiary, for the purpose of erecting and equipping a brick plant at the State penitentiary for the manufacture of building and vitrified brick for the State's use; and the auditor of state is hereby authorized to draw his warrant upon the treasurer of state for the amount and purposes herein stated.

Sec. 7. It shall be unlawful to allow any convict in the penitentiary to perform any labor for private citizens outside of the penitentiary grounds, for hire or otherwise, and it shall be the duty of the warden to employ the surplus convict labor in extending and repairing the State road, and upon other work exclusively for the benefit of the State.

Approved March 7, 1899.

CHAPTER 152.—*Payment of wages—Use of time checks, duebills, orders, etc., forbidden.*

SECTION 1. Any time check, duebill, order, or orders for merchandise, issued by any person, firm, or corporation to any person in their or its employ in payment of wages for labor, shall be dated at the time of its issuance, and, after fifteen days from the date of issuance, shall, at the option of the holder thereof, be payable by the maker in lawful money of the United States: *Provided*, That nothing in this act shall be construed to repeal any law now on the statute book.

Sec. 2. In the event the maker of any time check, duebill, or orders for merchandise issued in payment of wages for labor shall refuse to redeem and pay the same in lawful money of the United States, and the holder thereof brings an action to recover thereon, said maker shall be liable for double the amount of said time check, duebill, or order for merchandise to the holder thereof, together with a reasonable attorney fee, to be recovered in such action.

Sec. 3. This act shall take effect from and after its publication in the official State paper.

Approved February 28, 1899.

Published in official State paper March 8, 1899.

CHAPTER 165.—*Coal mine regulations—Shafts.*

SECTION 1. In all coal mines that are now or have been in operation or which may hereafter be put in operation in the State of Kansas, prior to the 1st day of March, 1899, and which are worked by or through a shaft, slope, or drift, and in which more than ten miners are employed in each twenty-four hours, if there is not already an escapement shaft to each and every said mine, or communication between each and every mine and some other contiguous mine, then there shall be an escape shaft or some other communication such as shall be approved by the secretary of mine industries or mine inspector, making at least two distinct means of ingress or egress for all persons employed or permitted to work in such mine. Such escape shaft or other

communication with a contiguous mine aforesaid shall be constructed in connection with every vein or stratum of coal worked in any mine, and the time to be allowed for such construction shall be four months when such mine is under one hundred feet in depth, and eight months when said mine is over one hundred and not over two hundred feet in depth, and one year for all mines over two hundred and not over three hundred feet in depth, two years for all mines over three hundred feet and not over four hundred feet in depth, three years for all mines over four hundred feet and not over five hundred feet in depth, and five years for all mines over five hundred feet in depth.

Sec. 2. Said escape shaft shall be constructed at least three hundred feet from main or hoisting shaft or any buildings connected therewith, and said escape shaft shall be provided with stairways securely fastened so as to bear the combined weight of not less than fifteen men ascending or descending the same. Said stairways shall be so constructed as not to exceed forty-five degrees of elevation by each section of said stairway, and each section shall have substantial guard rails securely fastened, and the stairways shall be separately partitioned from the parts of such shafts used as upcasts or downcasts, and the traveling ways between the bottom of main shaft and the escape shaft or stairway shall be at least five feet in height; said traveling ways shall be kept clear of all obstructions, and stagnant or standing water shall not be allowed to accumulate in any traveling way between the upcast and downcast shafts.

Sec. 3. Whenever the owner, agent, or operator of any mine shall neglect, fail, or refuse to comply with sections 1 and 2 of this act, it shall be the duty of the secretary of mine industries or State mine inspector, when apprised of this fact, to enter complaint with the county attorney of the county in which such mine or mines are located, and such county attorney shall immediately prosecute said owner, agent, or operator of said mine the same as in other cases; and in all prosecutions under this act it shall be conclusive evidence against the party charged if it shall be conclusively proved that said escape shaft was not constructed according to the provisions of this act and within the time heretofore stated. Any owner, operator, agent, or lessee who fails to comply with sections 1 and 2 of this act shall be deemed guilty of a misdemeanor, and shall on conviction be fined in a sum not less than five hundred dollars nor more than two thousand dollars, or by imprisonment not less than six months nor more than two years, or by both such fine and imprisonment.

Sec. 4. All acts or parts of acts in conflict with this act are hereby repealed.

Sec. 5. This act shall take effect and be in force from and after its publication in the official State paper.

Approved March 4, 1899.

Published in official State paper March 29, 1899.

CHAPTER 171.—*Output of coal at the penitentiary.*

SECTION 1. No coal mined at the penitentiary shall hereafter be sold on the market by contract or otherwise.

Sec. 2. The output of coal at the penitentiary mine shall be limited to the needs of the public buildings and institutions of the State.

Sec. 3. Chapter 163 of the session laws of 1897 and all other acts and parts of acts in conflict with this act are hereby repealed.

Sec. 4. This act shall take effect and be in force from and after its passage and publication in the official State paper.

Approved March 4, 1899.

Published in official State paper April 1, 1899.

MAINE.

ACTS OF 1899.

CHAPTER 3.—*Licensing of intelligence offices by municipal officers.*

Section six of chapter one hundred and fifty-six of the public laws of eighteen hundred and ninety-five is hereby amended * * *, so that said section, as amended, shall read as follows:

SECTION 6. The municipal officers of any town may, on payment of one dollar each, grant licenses to suitable persons for one year, unless sooner revoked after notice and for cause, to keep offices for the purpose of obtaining employment for domestics, servants, or other laborers, except seamen, or of giving information relating thereto, or of doing the usual business of intelligence offices. Whoever keeps such an office

without a license forfeits not exceeding fifty dollars for every day that it is so kept. The keeper of an intelligence office shall not retain any sum of money, in excess of one dollar, received from a person seeking employment through the agency of such intelligence office, unless employment of the kind sought for is actually furnished. The keeper of a licensed intelligence office shall cause two copies of this act, printed in type of sufficient size to be legible and easily read, to be conspicuously posted in each room used or occupied for the purposes of such intelligence office. Whoever violates the provisions of this act shall have the license revoked, and shall be punished by fine not exceeding twenty dollars for each offense.

Approved February 9, 1899.

CHAPTER 53.—*Penalty for aiding sailors to desert.*

SECTION 1. Whoever entices or persuades or attempts to entice or persuade, or aids, assists, or attempts to aid or assist a member of the crew of any vessel arriving in or about to sail from a port in this State to leave or desert such vessel before the expiration of his term of service therein, shall forfeit a sum not exceeding one hundred dollars for each offense and be punished by imprisonment for not more than six months nor less than thirty days, at the discretion of the court.

SEC. 2. Municipal courts and trial justices shall have original jurisdiction in all cases arising under this act.

Approved March 9, 1899.

TENNESSEE.

ACTS OF 1899.

CHAPTER 11.—*Payment of wages—Scrip, etc., issued to pay employees to be redeemed in money.*

SECTION 1. All persons, firms, corporations, and companies using coupons, scrip, punchouts, store orders, or other evidences of indebtedness to pay their or its laborers and employees, for labor or otherwise, shall, if demanded, redeem the same in the hands of such laborer, employee, or bona fide holder in good and lawful money of the United States: *Provided*, The same is presented and redemption demanded of such person, firm, company, or corporation using same as aforesaid at a regular pay day of such person, firm, company, or corporation to laborers or employees, or if presented and redemption demanded as aforesaid by such laborers, employees, or bona fide holders at any time not less than thirty days from the issuance or delivery of such coupon, scrip, punchout, store order, or other evidences of indebtedness to such employees, laborers, or bona fide holder. Such redemption to be at the face value of said scrip, punchout, coupon, store order, or other evidence of indebtedness: *Provided further*, Said face value shall be in cash the same as its purchasing power in goods, wares, and merchandise at the commissary company store or other repository of such company, firm, person, or corporation aforesaid.

SEC. 2. Any employee, laborer, or bona fide holder referred to in section 1 of this act, upon presentation and demand for redemption of such scrip, coupon, punchout, store order, or other evidence of indebtedness as aforesaid, and upon refusal of such person, firm, corporation, or company to redeem the same in good and lawful money of the United States, may maintain in his, her, or their own name an action before any court of competent jurisdiction against such person, firm, corporation, or company using same as aforesaid for the recovery of the value of such coupon, scrip, punchout, store order, or other evidence of indebtedness as defined in section 1 of this act.

SEC. 3. Nothing herein in this act contained is to be so construed as to legalize the issuance or use of scrip. All laws in conflict with this act are hereby repealed.

SEC. 4. This act [shall] take effect from and after its passage, the public welfare requiring it.

Passed March 17, 1899.

Approved March 23, 1899.

[See decision of Tennessee supreme court on constitutionality of statute, etc., page 415, ante.]

CHAPTER 38.—*Exemption from execution, etc.*

SECTION 1. Thirty dollars shall be exempt from execution, seizure, or attachment of the wages of any employee in the State.

SEC. 2. This act [shall] take effect from and after its passage, the public welfare requiring it.

Passed March 23, 1899.

Approved March 27, 1899.

CHAPTER 182.—*Protection of the wages of laborers on public works—Contractor's bond.*

SECTION 1. Hereafter no contract shall be let for any public work in this State, by any city, county, or State authority, until the contractor shall first execute a good and solvent bond to the effect that he will pay for all the materials and labor used in said contract in lawful money of the United States. The bond to be given under this section shall be for one-half of the contract price on all contracts of two thousand dollars, or under; one-half of the first two thousand dollars, and thirty-five per cent of all over that amount on all contracts between two thousand dollars and five thousand dollars; and one-half of the first two thousand dollars, thirty-five per cent on the next three thousand dollars, and twenty-five per cent on the balance on all contracts over five thousand dollars. Where advertisement is made the condition of the bond shall be stated in the advertisement: *Provided*, That this act shall not apply to contracts under \$100.

SEC. 2. Any laborer or furnisher of material may bring an action on such bond, and make recovery in his own name, upon giving security or taking the oath prescribed for poor persons as provided by law, and in the event of such suit, the city, county, or State shall not be liable for any costs accruing thereunder.

SEC. 3. If any public officer, whose duty it is to let or award contracts, shall let or award any contract without requiring bond for the payment of labor and material, in compliance with the provisions of section 1 hereof, such officer shall be guilty of a misdemeanor.

SEC. 4. The laborer or furnisher of materials, to secure advantage of this act, shall file with the public officer who has charge of the letting of any contract an itemized statement of the amount owed by the contractor for materials and labor used within thirty (30) days after the contract is completed.

SEC. 5. This act [shall] take effect from and after its passage, the public welfare requiring it.

Passed March 15, 1899.

Approved March 17, 1899.

CHAPTER 338.—*Payment of check weighmen at mines.*

SECTION 1. When miners of coal or other minerals in this State elect a check weighman or measurer, as provided by chapter 206 of the acts of March 26, 1887, the operators, company, or firm employing said miners shall, upon receiving notice in writing from the miners of said election of check weighman, withhold from each miner an equal amount, agreed upon by the miners and check weighman, and pay the same to the check weighman at each regular pay day.

SEC. 2. Upon failure of any operator, company, or firm to comply with section 1 of this act, they shall be liable to the check weighman for the full amount of his wages, and shall be guilty of a misdemeanor, and upon conviction shall be fined at the discretion of [the] court having jurisdiction.

SEC. 3. This act [shall] take effect from and after its passage, the public welfare requiring it.

Passed April 20, 1899.

Approved April 21, 1899.

CHAPTER 358.—*Convict labor—Jails.*

SECTION 1. The judge or chairman of the county court, the county court clerk, and the sheriff of each county in the State of Tennessee are hereby constituted a board for their respective counties, whose duty it is hereby made to enter into contracts with public road commissioners or other officers or road contractors having the superintendence of working the public roads of this State, for the employment on the public roads of prisoners confined in the county jails for the nonpayment of fines and costs adjudged against them by the courts. The said contracts are to be made without delay when a prisoner is confined in the county jail, and it is hereby made the duty of those having the superintendence of the working of the public roads, or road contractors, to enter into contracts immediately with the above-named board for the employment of said prisoners.

SEC. 3. Said prisoners shall be worked on any of the public roads of the county, and the same number of hours of labor per day as required by the public road laws of the State shall constitute a day's work, and said prisoners shall be allowed seventy-five cents for each day's work in addition to twenty-five cents now allowed by law, which amount shall be credited to his fine and costs. * * *

SEC. 4. The provisions of this act shall not be construed to conflict with the provisions of chapter 123 of the acts of 1891, providing for the construction of workhouses in any county in this State, or declaring any county jail in this State a workhouse, but shall be construed as supplementary to said act of 1891, chapter 123, and this act shall apply to such counties as are not now actually working all of their prisoners confined in the county jail of this State for nonpayment of fines and costs adjudged against them, or that may hereafter not be actually working said prisoners, according to the provisions of chapter 123 of the acts of 1891.

SEC. 5. The county employment boards created by this act, of any two or more adjoining counties, when they deem it advisable, may combine the prisoners of said counties and work them on the public roads of said counties according to the rules and regulations provided for in the foregoing sections of this act.

SEC. 7. This act [shall] take effect thirty days after the adjournment of this general assembly, the public welfare requiring it.

Passed April 20, 1899.

Approved April 21, 1899.

CHAPTER 368.—*Convict labor—Jails and workhouses—Hours of labor on public roads.*

SECTION 7. All county prisoners subject to labor shall be employed hereafter, as far as practicable, upon the public highways. In counties having separate workhouses, or where the jails have been declared workhouses, the workhouse commissioners may let the convicts to contractors for road labor; in all other counties the judge or chairman of the county court may let them to contractors, who will employ them upon the highways. In either case the county authorities shall name the guards, and the prisoners shall be treated at all times with humanity. Eight hours shall be a day's work upon the highways, whether performed by convicts or free road hands. Nothing in this act shall affect the present law in regard to working county prisoners in counties having a population of 35,000 or over, by the last Federal census or any subsequent Federal census.

SEC. 11. All laws and parts of laws in conflict with this act are hereby repealed; and this act [shall] take effect from and after January 1, 1900, the public welfare requiring it.

Passed April 21, 1899.

Approved April 22, 1899.

CHAPTER 401.—*Inspection, etc., of factories and workshops.*

SECTION 1. The governor, with the consent and advice of the senate, shall appoint an officer to be known as a shop and factory inspector, who shall hold office for a term of two years or until his successor shall be appointed and qualified: *Provided*, That he may be removed at any time by the governor for cause.

SEC. 2. It shall be the duty of the shop and factory inspector to inspect all workshops and factories where machinery is used at least once every six months, and he shall have authority to enter such workshops or factories at all proper times for the purposes of such inspection. He shall, on or before the first day of January of each year, make a report to the governor of the condition as respects safety to life and health of workshops and factories visited by him, and said report shall be printed for the use of the general assembly at its regular sessions. The expense of printing said report shall be paid out of the general appropriation for printing the reports of State officers.

SEC. 3. All workshops and factories where machinery is used shall be well ventilated and kept as clean as the nature of the business will permit. The belting, shafting, gearing, machinery, and drums of all workshops and factories where machinery is used, when so placed as in the opinion of the shop and factory inspector to be dangerous to persons employed therein while engaged in their ordinary duties, shall, as far as practicable, be securely guarded.

SEC. 4. The shop and factory inspector may order the opening of all hatchways, elevator wells, and wheel holes upon every floor of any workshop or factory where machinery is used, to be protected by good trapdoors, self-closing hatches, or safety catches or other safeguards such as will insure the safety of the employees in such workshop or factory when engaged in their ordinary duties.

SEC. 5. Every person, firm, or corporation running or operating any workshop or factory where fifteen or more persons are employed at labor, shall provide separate water-closets for males and females, and keep the same in good sanitary condition.

SEC. 6. It shall be the duty of the shop and factory inspector to enforce the provisions of this act by giving proper notices to the person, firm, or corporation operating or running workshops or factories inspected by him, and also to make complaint to the attorneys-general of the respective districts of all violations of this act.

SEC. 7. Any person, firm, or corporation operating or running any workshop or factory where machinery is used, upon conviction of a violation of this act, shall be fined not less than twenty-five dollars (\$25) nor more than one hundred dollars (\$100) for each offense: *Provided*, No action shall be taken until after four weeks' notice shall have been given by the shop and factory inspector to any firm, person, or corporation operating or running a workshop or factory of the changes necessary to be made, and not then if in the meantime said changes have been made.

SEC. 8. The orders or notices given by the shop and factory inspector shall be written or printed, and signed by him officially, and served by himself or by leaving an attested copy thereof at the usual place of business of the person upon whom service is to be made, and a copy of the same shall be filed in the office of the county court clerk of the county in which the workshop or factory is located, and such copy shall be prima facie evidence that notice was given.

SEC. 9. For the inspection of each factory the inspector shall receive a fee of \$5, to be paid by the factory inspected: *Provided*, That when his fees reach \$1,500 per annum he shall cover all amount of fee above the sum of \$1,500 per annum into the State treasury: *Provided*, That this act shall apply to and have force and effect only in counties having a population of over 30,000 by the Federal census of 1890, or any subsequent Federal census.

SEC. 10. This act [shall] take effect from and after its passage, the public welfare requiring it.

Passed April 21, 1899.

Approved April 22, 1899.

RECENT GOVERNMENT CONTRACTS.

[The Secretaries of the Treasury, War, and Navy Departments have consented to furnish statements of all contracts for constructions and repairs entered into by them. These, as received, will appear from time to time in the Bulletin.]

The following contracts have been made by the office of the Supervising Architect of the Treasury:

ELLIS ISLAND, N. Y.—February 20, 1900. Contract with Daniel A. Garber, New York, N. Y., for the construction of the hospital building, except electric wiring, heating, and ventilating and elevators, \$121,319.65. Work to be completed within ten months.

COLUMBUS, GA.—March 8, 1900. Contract with Richardson & Burgess, Washington, D. C., for extension to post-office, except heating apparatus, \$29,466. Work to be completed within ten months.

TOPEKA, KANS.—March 8, 1900. Contract with Charles A. Moses, Chicago, Ill., for extension to court-house and post-office, except heating apparatus, electric wiring and conduits, \$61,130. Work to be completed within ten months.

BULLETIN

OF THE

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No. 28—MAY, 1900.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

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BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 28.

WASHINGTON.

MAY, 1900.

VOLUNTARY CONCILIATION AND ARBITRATION IN GREAT BRITAIN.

BY JOHN BRUCE M'PHERSON. (a)

[In Bulletin No. 8, the issue of January, 1897, the history of conciliation and arbitration in the boot and shoe industry in the United States was given. In the article here presented the aim has been to show in like manner the growth and present status of voluntary conciliation and arbitration in various industries of Great Britain. This, it is believed, will be of greater value because of the longer development and more general adoption of conciliation and arbitration in Great Britain when compared with our own country. The history of the disputes and discussions in the principal industries leading up to the adoption of the present rules has been given in the case of each board of conciliation and arbitration. This, of course, involves a sameness of treatment that savors largely of repetition. It is believed that this method of presentation is justified by the fact that it is only through a study of the disputes, the strikes and lockouts growing out of them, and the efforts, successful and otherwise, to arrive at a settlement and to avoid disputes in the future that a clear understanding will be had of the reasons for the variations in details in the rules for the organization of boards and the methods of procedure that have been adopted for avoiding or settling disputes

^a In making this investigation the writer wishes to acknowledge valuable assistance from Mr. Llewellyn Smith, commissioner of labor of Great Britain, J. Ratcliffe Ellis, T. Ashton, Ralph Young, James Cox, J. Dennington, J. C. Bishop, John Cronin, Luke Fenwick, T. Biggart, James Robinson, W. Glennie, A. W. Chamberlin, Richard Cort, G. F. Lea, Robert Harrison, E. L. Poulton, James Mawdsley, W. H. Wilkinson, James Johnson, J. Thompson, John Taylor, Mr. Owen, H. A. Goodyer, W. A. Appleton, E. A. Beaumont, E. J. Smith, W. A. Addinsall, E. J. Davis, S. B. Burton, and Charles E. Musgrave.

between employer and employee in the various industries. The subject is so new and so important that a knowledge of all of the various methods of conciliation and arbitration and of the experience under each seems likely to be both of interest and of value.—C. D. W.]

Many years ago the manufacturers and workmen of England recognized the futility of industrial wars and set about devising ways to avoid, if possible, trade disputes; and if impossible to do that, to arbitrate and settle them in peaceful ways. In that little Kingdom there are great industries; and, as a result, there have been great strikes, lasting for many weeks, long-continued contests between capital and labor, causing great loss and suffering. There have been great riots and arson and destruction of property. The manufacturers and workmen grew tired after many years of these destructive methods—tired of jealousies and vindictiveness—and for the last 40 years, or since 1860 and even earlier, the doctrines of conciliation and arbitration have been taking root and growing, until at present there is scarcely a trade or a trade center in England which has not its boards and committees organized to bring quiet and contentment, or at least less discontent, to both masters and men.

We can not close our eyes to the strike in the coal trade in 1893, the engineering dispute in 1897, or the several contests in the shoe trade; but during 40 years both men and masters have been tried in the crucible of experience, and out of it all has come a confirmed and widespread belief in the efficacy of conciliation and arbitration in the settlement of all trade difficulties. When Mr. Mundella began his experiment with conciliation and arbitration in the hosiery trade in 1860 and a few years later Mr. Rupert Kettle continued and extended the work as arbitrator in the Northampton building trades, they probably little realized how, before the beginning of the next century, the principle would permeate nearly every one of the great number of trades of the Kingdom.

Many of the legal principles and customs of the United States have been derived from England. Something can be gained from her experience in industrial matters. With its vast commercial enterprises this country should profit by her experience and avoid, as much as possible, the very struggles her manufacturers and workmen have gone through. Thus an attempt should be made to escape these industrial conflicts which are as harmful to the industries of the country as war is harmful to its finances.

Strikes are not favored by the men, one of whose representatives years ago declared them to be "crimes unless prompted by absolute necessity." At the recent International Miners' Congress, held at Brussels in May, 1899, Mr. Burt, the representative of the Northumberland miners in Parliament, regretted the strike of the Belgian miners and said it would have been much better if they had obtained

their advances without a strike. In his opinion "every possible means should be tried of obtaining the workmen's rights without going on strike."

The men as well as the masters prefer peace to war. The rules governing the masters' and the men's associations and societies recognize how baleful and inimical to the interests of both are strikes and disputes, and provision is made for careful investigation of all complaints before it is possible to declare a strike or lockout. While these measures are taken to prevent outbreaks between the two sides, almost equal caution is taken to avoid disagreements within each association. When the order for a strike is given, it is only after every effort has been made to arrange the difference in a peaceful way, and the belief in the justice of the demand is fixed and sure.

After the conflict is on strenuous efforts are made by the opposing sides to influence public opinion. The press devotes much space to manifestos and communications from the several secretaries and friends of the belligerents, while the church dignitaries and statesmen are occasionally appealed to, when the situation becomes grave, to lend their influence toward effecting a settlement.

Among the early difficulties of conciliation and arbitration was the unwillingness of the employers to recognize the trade unions. The day for opposition to them has passed, and to-day employers readily grant the right of the men to organize. Not only do they grant the right, but they favor organization, and declare the impossibility of carrying on negotiations without organized bodies. The fight for the existence of the unions and collective bargaining has been made and won. Organization on each side is essential and desirable. The manufacturers feel that it is better to deal with representatives of an organization, which has a past and is likely to be conservative, than with disorganized labor which frequently degenerates into a mob. On the other hand, the men find it more satisfactory to deal with employers organized into an association than with individual masters. The former are regarded as more liberal and less selfish than the latter, and much personal bitterness is eliminated.

The necessity for organization on each side, under compulsory arbitration, is shown by the plan adopted in New Zealand, which contemplates the organization of employers and employed into associations and unions as the foundation of the whole structure. It is believed, whether under compulsory or voluntary action, to be better for each side and for the public that the parties to an industrial dispute should be committees and not mobs. Inducements are given and rules provided for this organization of both employers and men.

Strikes more frequently result from lack of organization than from organization. As powerful armies and navies are supposed to make for peace rather than war, so well-organized associations, with well-

filled treasuries, are regarded not as a menace to peace in the trades, but as a powerful preventive of war.

To-day in England each side in nearly every trade is strongly banded together, and with careful systems of organization and unlimited funds with which to sustain themselves, tremendous conflicts could be precipitated were there no peaceful methods agreed upon binding all concerned for the settlement of differences. Without such methods the two powerful armed camps, ready to declare industrial war, would be a danger to all trades, and with hostilities once begun great suffering and loss would certainly follow.

Under present conditions it is most necessary that all conciliatory means should be exhausted before actual warfare is begun. When a strike has been ordered and carried on for some time it is usually brought to a close by the intervention of a third person, or by a conference between the antagonists. If the end can be reached in this way after a time of weary fighting and loss, why not let the conference precede the strike and prevent all the distressing accompaniments of such a struggle? Many strikes have been caused by slight misunderstandings, and have been brought to an end by exhaustion, not by voluntary submission on either side; and bitterness has resulted where acquiescence should have been found. It is necessary, therefore, to have a place for calm, second thought, where the whole situation may be gone over in a courteous, argumentative way about a common table, with equal chance for expression of views and opinions. The conciliation boards offer such opportunity before the men go on record one way or the other and before their better judgment is carried away by passion or prejudice. The prevailing idea is that there must be no dealing at arm's length. Some machinery must be devised by which capital and labor can be brought into contact, explanations made to the workmen which they have a right to hear, and discussion of all questions in dispute encouraged.

As early as the fourteenth century repeated attempts were made in England to fix wages by parliamentary regulation, but all were ineffectual. The first statute of laborers was passed in 1349 fixing wages at rates prevailing two decades earlier. In 1389 an act was passed which enjoined justices of the peace to settle and proclaim wages. During the reigns of Henry VI, Henry VII, and Henry VIII, wages were alternately fixed by statute or by decisions of the justices. Another statute of laborers was passed in the time of Elizabeth abolishing all previous acts, fixing hours of labor with great minuteness, and authorizing the justices in session to decide the rates of wages. This act was confirmed by James I, and was extended to all workmen. By the act of 1796 justices were directed to establish a national rate of wages, but this was repealed in 1834.

The English people have seen the futility of such legislation, and for the past 40 years have been turning more and more to voluntary means

of settling wages and all labor disputes. The early promoters of conciliation, Mr. Mundella and Mr. Kettle, with their successors have insisted always that to make the procedure successful it must be purely voluntary. Legislation within the present century has made few attempts at compulsory regulation of labor matters, but rather has been directed toward removing restrictions placed on masters and men. The general feeling now is that expressed by Mr. Bradlaugh that "Parliament should only interfere in industrial pursuits of adults where necessary to protect life or limb, including in this, sanitary legislation."

Parliamentary committees have investigated many phases of the labor question, and one of the latest acts of Parliament, the conciliation act of 1896, repeals the masters and workmen arbitration act of 1824, the councils of the conciliation act of 1867, and the arbitration (masters and workmen) act of 1872. This latest statute is entitled "An act to make better provision for the prevention and settlement of trade disputes." It provides for the registration by the board of trade of any board established for the purpose of settling disputes between employers and workmen. The application must be accompanied by copies of the constitution, by-laws, and regulations of the conciliation board, with reports of its proceedings and such other information as the board of trade may reasonably require. The act contains the following provisions regarding the settlement of disputes:

Where a difference exists or is apprehended between an employer, or any class of employers, and workmen, or between different classes of workmen, the board of trade may, if they think fit, exercise all or any of the following powers, namely:

1. Inquire into the causes and circumstances of the difference.
2. Take such steps as to the board may seem expedient for the purpose of enabling the parties to the difference to meet together, by themselves or their representatives, under the presidency of a chairman mutually agreed upon or nominated by the board of trade or by some other person or body, with a view to the amicable settlement of the difference.
3. On the application of employers or workmen interested, and after taking into consideration the existence and adequacy of means available for conciliation in the district or trade and the circumstances of the case, appoint a person or persons to act as conciliator or as a board of conciliation.
4. On the application of both parties to the difference, appoint an arbitrator.

If any person is so appointed to act as conciliator, he shall inquire into the causes and circumstances of the difference by communication with the parties, and otherwise shall endeavor to bring about a settlement of the difference, and shall report his proceedings to the board of trade.

If a settlement of the difference is effected either by conciliation or by arbitration, a memorandum of the terms thereof shall be drawn up and signed by the parties or their representatives, and a copy thereof shall be delivered to and kept by the board of trade.

It is, however, with the workings of purely voluntary boards of conciliation and arbitration that this report has to deal. Notwithstanding the statement of the advocates of the New Zealand compulsory arbitration act that investigation shows the worthlessness of voluntary methods, the representatives of the English employers and workmen seem to believe that under existing conditions voluntary conciliation and arbitration are by far the best and, in fact, the only rational means of avoiding disputes and of settling them after they have once arisen.

By securing the views of representatives of the two sides and bringing them to the attention of capitalists and workmen on this side of the Atlantic, it is hoped that we, if we are wise, with their experiences and blunders from which to learn lessons that have cost them dear, may at least try to avoid some of their mistakes and imitate their successes, to the great good of all engaged in trade. Their experience proves conclusively that amicable relations can be maintained in any trade, security obtained for the masters, and fair wages for the men by the simple, quiet method of conference and agreement.

For this investigation trades were chosen which we have in this country, as, for example, the coal trade, boot and shoe, lace, iron and steel, engineering, machinist, weaving and spinning, shipbuilding, potteries, and brass trades. While the record is not one of unbroken successes, yet the testimony, on the whole, shows satisfaction with the method; and all agree that it is vastly better than the old order with strikes and lockouts, and far more in harmony with present day ideas of the duty owed by man to man.

THE ENGINEERING TRADE.

One of the largest and most wide-reaching controversies among English workmen in recent years was that between the Amalgamated Society of Engineers (machinists) and the Employers' Federation of Engineering Associations in 1897. The immediate cause of the conflict was the demand for an eight-hour day.

Relations far from cordial had existed between masters and men since 1892, the friction being confined chiefly to the marine engineering centers. Between 1892 and 1897 the federation had been greatly strengthened; the employers had also been organized since 1896, and there arose a feeling of irritation on both sides. The workmen imagined that the employers viewed their federation with dislike, and regarded trade unionism with opposition and hatred, while the manufacturers were needlessly irritated by many frivolous claims made under cover of membership of the unions. During these years little

effort was made to conciliate the members of the two organizations or harmonize their differences. Wise counsels were not heeded to stop the growth of irritation and resentment. With such a condition in the trade, it was not surprising that when the demand was made for a reduction of hours and was refused, it afforded an opportunity for the two sides to come to open hostilities, toward which they had long been tending, and which were not unwelcome to many.

In January a number of the London firms agreed to a reduction of hours on old work, and in February yielded as to new work also, this change affecting 400 or 500 men. Concessions having been secured from some employers it was decided to make a general request of all for the shorter day.

Early in March, 1897, a circular was issued by the London district committee of the Amalgamated Society of Engineers to the London district members, which set forth that more than 3,000 members of the society were working an 8-hour day in London; that the Government had granted such hours of labor to its employees at the Woolwich Arsenal and many private works had made a like concession, and that the committee had decided to put the question to a vote. The committee favored the request for an 8-hour day and a 48-hour week, without reduction of pay. The vote was 2,692 in favor of the demand and 372 against it.

Under date of April 30 a communication was sent to the employers in the engineering, machine, and other industries in London and district by the representative of the Amalgamated Society of Engineers, and kindred trades, requesting them to concede the 8-hour working day without reduction of pay, and asking an answer not later than the 26th of May. The committee that initiated the movement was composed of the Amalgamated Society of Engineers, Boiler Makers and Iron and Steel Ship Builders' Society, Steam Engine Makers' Society, United Society of Smiths and Hammermen, London and Provincial Society of Coppersmiths, London United Society of Drillers, and the United Machine Workers' Association.

The following societies also joined after movement was well under way: London United Society of Brass Finishers (engineering section), London and Provincial Society of Hammermen, Marine and General Engineers' Society, Amalgamated Society of Tool Makers, Scientific Instrument Makers, and London United Society of Brass Founders.

During July the boiler makers withdrew from the joint committee and the subsequent long struggle was waged without their assistance.

A joint reply was received from a number of employers stating that the request was receiving careful attention, while the federation committee, finding that some employers were starting their men to work overtime and rushing work, stopped this extra work from May 28.

On the 5th of June the employers' association notified the men that they could not grant the reduction of hours, and regretted the attempt "to coerce our London members by the arbitrary suspension of all overtime." On the same day the men were notified that the London District Association of Engineering Employers had been admitted to the employers' federation.

On June 28 the men's representatives notified the employers of the intention of the men to cease work at three establishments on July 3 unless the 8-hour day was conceded. On July 1 the Federated Engineering Employers and the Shipbuilders and Iron Trades Association replied to the above notice by the adoption of the following resolution:

That in the event of the members of the trade unions represented by the joint committee of these unions for securing a reduction of the working hours in London from 54 to 48 per week going out on strike on Saturday, July 3, as threatened, in any workshop belonging to a member of the federated employers, notices will immediately be given by the members of the associations affiliated to the federation that a reduction of hands of 25 per cent will take place of the members of such unions in their employment.

Many of the district organizations favored the acceptance of the challenge and instructions were issued recommending that in case the notices should be given to "the 25 per cent," there should be stoppage of all overtime work, the organization of lockout committees, and a retaliatory notice for all men to cease work simultaneously with "the 25 per cent."

On the 3d of July the men in 3 London firms ceased work and 10 days later a lockout was generally enforced throughout the country, 16,944 members of the Amalgamated Society of Engineers being thrown out of employment.

The demand of the men was justified on several grounds. The improvement in recent years of inner London caused a hardship to the workmen in that, owing to increased rentals they were pushed farther and farther from their work. They were due at the factory at 6 o'clock, which necessitated their leaving home without breakfast as early as 4 or 4.30 in the morning. Nine hours in the workshop meant an absence of 12 or more hours from their homes. Domestic life was greatly interfered with, the men complaining that they had no time for mental culture or participation in public affairs, hence the desire for a shorter working day. They also declared that the real object of the employers was to crush the Amalgamated Society of Engineers and strike an effective blow at trade unionism.

The direct cause of the trouble from the men's standpoint was the intermeddling of the employers' federation with a local dispute. In January and February there had been serious differences over trifling matters, but they had been adjusted. The London engineers had been

negotiating in the two months mentioned for the 8-hour day with the only organization of London employers of which they had knowledge, and the concession was made to these men in their employ. The same demand was then made on all the employers in the district. Many, it is stated, fell in line; some hesitated and finally acquiesced, but others held out and joined the employers' federation on the 5th of June.

Their grievance with the employers' federation was the threat made by the employers on July 1 to declare a lockout over the whole country unless the former withdrew notices served on the London nonconceding firms who joined the federation only on June 5. They felt the employers' federation had converted a local negotiation, amicably proceeding to adjustment, into a national dispute. A great majority of the London firms had conceded the shorter hours and about 30 firms had joined in the lockout. The men felt they had no alternative left but to stop overtime work and to follow that with a strike against those firms who refused. This was in justice to the firms that had conceded the demand.

For the first time in a long period the masters were thoroughly united in opposition to the 48-hour week; and to protect their London members the employers' federation took united action to avoid sectional defeat before it was made general over the country.

It was denied emphatically that the object of the employers' federation was to smash the engineers' society. The masters were compelled to organize, it was said, because the society had been using irritating tactics for some years which much disturbed the trade. Inequitable concessions were obtained from single and isolated manufacturers and the situation became so intolerable that they sought protection in union, the object being, according to the manifesto issued, "to preserve industrial peace by preventing the preferment of inequitable demands, compliance with which was extorted by the use of force." The employers always insisted it was a strike and not a lockout, while the labor leaders insisted, with like firmness, that it was a lockout and not a strike.

During September and October the president of the board of trade tried to arrange a conference between the two parties, but was unsuccessful. The answer of the employers was—

1. The demand for a reduction of the working hours to 48 per week has been carefully considered, and the employers can only repeat that the conditions of the engineering and allied trades do not admit of any reduction of hours.

2. An important point involved in the dispute is the question of the management of works, and the federation is determined to secure for its members absolute freedom in this respect.

3. Under these circumstances any intervention of third parties can have no useful effect, and can not therefore be entertained.

The board of trade persisted in the effort to effect a settlement of the trouble, and on October 21 wrote both parties, inclosing for approval a rough draft of an agreement.

After the lapse of a month a conference was held which lasted for seven days, resulting in the submission of certain proposals, made by the employers to the men for refusal or adoption. These were as follows:

RATING OF WORKMEN ACCORDING TO ABILITY.

Every workman shall be paid according to his ability, and no employer shall be restricted in employing any workman at any rate of wages mutually satisfactory to them.

NOTE.—It must be distinctly understood that by the foregoing there is no intention whatever to reduce the rate of wages paid to efficient workmen.

The following are some illustrations of the necessity for employers having the freedom referred to:

In most works there are old servants, men up in years, or men whose efficiency is impaired by partial disablement or indifferent health, who are not able to earn the same wages as younger and stronger men; there are also men who, although they may have had a mechanical training, are not, from various circumstances, worth as high a rate of wages as other more able men, but still all these classes of workmen may be worth a lesser rate of wages. The employers must have the option of engaging or retaining these or other men at such rates of wages as are mutually satisfactory, rather than refuse them employment on work on which they could be advantageously employed.

APPRENTICES.

There shall be no limitation of the number of apprentices.

SELECTION, TRAINING, AND EMPLOYMENT OF OPERATIVES.

The machine tools are the property of the employers, and they are responsible for the work turned out by them. They therefore will continue to exercise their discretion to appoint the men they consider suitable to work them, and determine the conditions under which such machine tools shall be worked.

The employers consider it their duty to encourage ability wherever they find it, and shall have the right to select, train, and employ those whom they consider best adapted to the various operations carried on in their workshops, and will pay them according to their ability as workmen.

PROPOSALS FOR AVOIDING FURTHER DISPUTES.

With a view to avoiding disputes in future, deputations of workmen will be received by employers, or their representatives, by appointment, for mutual discussion of questions in the settlement of which both parties are directly concerned, but only the local associations of employers will negotiate with trade-union officials.

Failing settlement by the local association and the trade union of any question brought before them, the matter shall be forthwith referred to the executive board of the federation and the central authority of the trade union, and pending the question being dealt with there shall be no stoppage of work, either of a partial or general character, but work shall proceed under the current conditions.

Every workman shall be free to belong to a trade union or not, as he may think fit.

Every employer shall be free to employ any man, whether he belong or not to a trade union.

Every workman shall undertake to work peaceably and harmoniously with all fellow employees, whether he or they belong to a trade union or not.

PIECEWORK.

The right to work piecework, at present exercised by many of the federated employers, shall be extended to all members of the federation and to all their workmen.

The prices to be paid for piecework shall be fixed by mutual arrangement between the employer and the workmen who are to perform the work.

The federation will not countenance any piecework conditions which will not allow an efficient workman to earn at least the wage at which he is rated.

The federation recommend that all wages and balances shall be paid through the office.

OVERTIME.

Terms of recommendation agreed to be made to employers.

When overtime is necessary the federated employers recommend the following as a basis and guide:

That no man shall be required to work more than forty hours overtime in any four weeks, after full shop hours have been worked.

In the following cases overtime is not to be restricted, viz:

Breakdowns in plant.

General repairs, including ships.

Repairs or replace work, whether for the employer or his customers.

Trial trips.

No alteration, or restriction, or extension of this basis shall be made except by mutual agreement between the employer and the individual workman concerned.

This basis is to apply only to members of the trade unions who are represented at this conference.

All existing restrictions as regards overtime are to be removed.

An address was issued by the men's leaders when these terms were submitted for ratification or rejection, which was unfavorable to them, and the vote of 68,966 against them to 752 in their favor showed the men were with their leaders.

A second conference was held on the 14th of December and lasted for four days. The terms offered at this conference were exactly those afterwards agreed to, except the notes and the last three paragraphs of the agreement.

The men's representatives offered a proposal for a 51-hour week, and on this, too, the vote was taken. For the modified proposals of the employers the vote was 1,041; against them, 54,933. For the 51-hour week 8,515 votes were cast, with 42,080 against it.

The lockout was extending, and suffering and privation were increasing among the men. Voluntary subscriptions for their support were falling off, and on January 13 the London joint committee which ordered the strike passed a resolution to withdraw the demand for the 8-hour day. Notice of this was given to the employers, who consented to incorporate in the terms of settlement notes and explanations tend-

ing to protect the interests of the trade unions, and the men were advised to accept the offer. This they did by a vote of 28,588 to 13,927, and the contest came to an end January 31, 1898, after a struggle lasting more than 30 weeks. The cost to the men in the funds of the amalgamated society was more than £227,000 (\$1,104,695.50), while the loss to the employers will never be known. In the end the men lost the 8-hour day, the first cause of the struggle, but gained some formal recognition of trade unionism, which the employers all the while protested they were not fighting and had no desire to crush. The terms finally agreed upon were as follows:

The federated employers, while disavowing any intention of interfering with the proper functions of trade unions, will admit no interference with the management of their business, and reserve to themselves the right to introduce into any federated workshop, at the option of the employer concerned, any condition of labor under which any member of the trade unions here represented were working at the commencement of the dispute in any of the workshops of the federated employers; but in the event of any trade union desiring to raise any question arising therefrom a meeting can be arranged by application to the secretary of the employers' local association to discuss the matter.

Nothing in the foregoing shall be construed as applying to the normal hours of work or to general rises and falls of wages or to rates of remuneration.

NOTE.—No new condition of labor is introduced or covered by this clause. It simply provides for equality of treatment between the unions and the federation by reserving for all the members of all the trade unions, as well as for all the federated employers, the same liberty which many trade unionists and many employers have always had.

Special provision is made in the clause and in the subsequent "provisions for avoiding future disputes" to secure to workmen or their representatives the right of bringing forward for discussion any grievance or supposed grievance.

Every workman shall be free to belong to a trade union or not, as he may think fit.

Every employer shall be free to employ any man, whether he belong or not to a trade union.

Every workman who elects to work in a federated workshop shall work peaceably and harmoniously with all fellow-employees, whether he or they belong to a trade union or not. He shall also be free to leave such employment, but no collective action shall be taken until the matter has been dealt with under the provisions for avoiding disputes.

The federation do not advise their members to object to union workmen or give preference to nonunion workmen.

NOTE.—The right of a man to join a trade union if he pleases involves the right of a man to abstain from joining a trade union if he pleases. This clause merely protects both rights. The federation sincerely hope that a better understanding will prevent any question of preference arising in the future, and advise the members not to object to union workmen.

The right to work piecework at present exercised by many of the federated employers shall be extended to all members of the federation and to all their union workmen.

The prices to be paid for piecework shall be fixed by mutual arrangement between the employer and the workman or workmen who perform the work.

The federation will not countenance any piecework conditions which will not allow a workman of average efficiency to earn at least the wage at which he is rated. (a)

The federation recommend that all wages and balances shall be paid through the office.

NOTE.—These are just the conditions that have been for long in force in various shops. Individual workmen are much benefited by piecework.

A mutual arrangement as to piecework rates between employer and workman in no way interferes with the functions of the unions in arranging with their own members the rates and conditions under which they shall work.

When overtime is necessary the federated employers recommend the following as a basis and guide:

That no man shall be required to work more than forty hours overtime in any four weeks after full shop hours have been worked, allowance being made for time lost through sickness or absence with leave.

In the following cases overtime is not to be restricted, viz:

Breakdowns in plant.

General repairs, including ships.

Repairs or replace work, whether for the employer or his customers.

Trial trips.

It is mutually agreed that in cases of urgency and emergency restrictions shall not apply.

This basis is to apply only to members of the trade unions who are represented at this conference.

All other existing restrictions as regards overtime are to be removed.

It is understood that if mutually satisfactory to the local association of employers and the workmen concerned, existing practices regarding overtime may be continued.

NOTE.—These overtime conditions are precisely the conditions now in operation in various places, though in many federated workshops no limitation whatever exists at the present time. In many cases this will be the first attempt to regulate or prevent excess of overtime.

Employers shall be free to employ workmen at rates of wages mutually satisfactory. They do not object to the unions, or any other body of workmen in their collective capacity, arranging amongst themselves rates of wages at which they will accept work, but while admitting this position they decline to enforce a rule of any society or an agreement between any society and its members.

The unions will not interfere in any way with the wages of workmen outside their own unions.

General alterations in the rate of wages in any district or districts will be negotiated between the employers' local association and the local representatives of the trade unions or other bodies of workmen concerned.

NOTE.—Collective bargaining between the unions and the employers' associations is here made the subject of distinct agreement.

The other clauses simply mean that as regards the wages to be paid there shall be (1) freedom to the employer; (2) freedom to the union workmen, both individually and in their collective capacity—that is to say, collective bargaining in its true sense is fully preserved; and (3) freedom to nonunionists.

a In reply to an inquiry as to the interpretation of this paragraph, the employers' secretaries, on January 21, 1898, wrote to the general secretary of the A. S. E., stating that the general note (appended to the explanations) which disclaims any intention of reducing the rates of wages of skilled men "applies both to time, wages, and to piecework earnings; in the latter case there is no intention of interfering with the usual practice of making extra payment for extra effort."

These conditions are precisely those in operation at present on the northeast coast, the Clyde, and elsewhere, where for years past alterations of wages have been amicably arranged at joint meetings of employers and representatives of the trade unions.

There shall be no limitation of the number of apprentices.

NOTE.—This merely puts on record the existing practice, and is to prevent a repetition of misunderstandings which have arisen in some cases.

Employers are responsible for the work turned out by their machine tools, and shall have full discretion to appoint the men they consider suitable to work them and determine the conditions under which such machine tools shall be worked. The employers consider it their duty to encourage ability wherever they find it, and shall have the right to select, train, and employ those whom they consider best adapted to the various operations carried on in their workshops, and will pay them according to their ability as workmen.

NOTE.—There is no desire on the part of the federation to create a specially favored class of workmen.

With a view to avoid disputes in future, deputations of workmen will be received by their employers, by appointment, for mutual discussion of questions in the settlement of which both parties are directly concerned. In case of disagreement the local associations of employers will negotiate with the local officials of the trade unions.

In the event of any trade union desiring to raise any question with an employers' association, a meeting can be arranged, by application to the secretary of the employers' local association, to discuss the question.

Failing settlement by the local association and the trade union of any question brought before them, the matter shall be forthwith referred to the executive board of the federation and the central authority of the trade union; and pending the question being dealt with, there shall be no stoppage of work, either of a partial or a general character, but work shall proceed under the current conditions.

NOTE.—A grievance may be brought forward for discussion either by the workman individually concerned, or by him and his fellow-workmen, or by the representatives of the union.

In no instance do the federated employers propose conditions which are not at present being worked under by large numbers of the members of the allied trade unions.

The federated employers do not want to introduce any new or untried conditions of work, and they have no intention of reducing the rates of wages of skilled men.

These conditions, with relative notes, are to be read and construed together.

Mr. W. Glennie, assistant secretary of the Amalgamated Society of Engineers, thinks that the provisions of the agreement have not worked to the advantage of the men, but instead have resulted in ill feeling. The men prefer an independent board made up of men not connected with the trade; but the employers will not hear to the intervention of third parties. The men are not hostile to the principle of arbitration, provided independent persons can be secured to act. In the settlement, however, there is no provision to prevent reference to a third person; if the representatives of the masters and men can not agree nothing but a rupture will ensue.

They have had local arrangements for conciliation and arbitration, but not for the whole society before the strike of 1897-98. Twice before that they had disputes for the whole trade—once in 1852 and again in 1879. In the first contest the men were beaten, but in the

second they were partially successful. Mr. Glennie could not say that the relations between the masters and men have ever been cordial; there has been a sort of armed neutrality. He thinks the most direct and ideal method of settling disputes is by the aid of a third man not connected with the trade. If the other two parties have a technical knowledge of the trade there is no need for the third person to have it. Technical engineers, he thinks, have a prejudice in favor of the masters, because it is from them that they must get employment, and that fact naturally influences their opinion.

Mr. Thomas Biggart, of Glasgow, one of the secretaries of the employers, says the masters prefer the arrangement they now have, with no provision for an umpire or referee or arbitrator, to an outside board. It brings together those whose life work is connected, whose interests are the same, and it brings experience. It could not be possible without a state of organization on each side. There is no personal element—all the manufacturers are men of eminent ability. They know when they will injure the trade by yielding a point, something an outside man does not. The trade can not be hurt without injuring both masters and men.

Mr. James Robinson, of Newcastle, another secretary of the employers' federation, said that locally they have a conciliation board with the molders, formed for the settlement of the wages question. In the shipbuilding they have no board. They have had only one strike and very little trouble in settling disputes. They have a wages agreement with the boiler makers and have had no strikes worth talking about. Nothing has occurred to bring about a general strike, though there have been troubles at local yards. Technical delegates, employed by the masters, and district delegates, employed by the men, meet daily to settle prices for new work. The demarcation disputes are settled by a method similar to a conciliation board. With them the great trouble has been to tell where one set of men should stop and where another should begin their work.

Arbitration is not regarded as an unmixed good. Much depends upon how it is brought about and conducted. In the arbitration agreed to by the masters they have made a provision, as far as possible, to avoid splitting the difference. This has proved fairly satisfactory. The masters prefer men accustomed to dealing with evidence and facts, and they always decline a man who smacks of politics. Oftentimes the matter in dispute is one of principle on which there can be no splitting of the difference. The conciliation board, he said, has saved immense sums of money for the shipbuilding yards, and there is a growing disposition on each side to settle the dispute amicably. There is much less heat and fire, and the men are far more ready to adopt peaceful means of settlement.

THE MINERS' FEDERATION OF GREAT BRITAIN.

The Miners' Federation of Great Britain has about 230,000 financial members and comprises in its membership the miners of Scotland, Wales, and England, excepting those of Durham and Northumberland, who have an association of their own. They do not favor the movement for an eight-hour day by legislation, their plan being to secure it through organization and combination rather than by law.

One of the greatest contests in the entire Kingdom occurred in 1893 in the coal trade. In June of that year the coal owners met and resolved that the trade was in a condition which justified them in asking for a reduction of 25 per cent in wages, based upon the standard of 1888. They also authorized the committee, which was appointed to meet the men, to offer to refer the question to arbitration. Between 1888 and 1890 advances amounting to 40 per cent were given the men upon the standard rate of wages paid in the early part of 1888. The demand of the owners in 1893 was a reduction of 25 per cent on the standard rate paid in 1888. With that reduction granted, wages would still have been 15 per cent higher than before the advance made five years earlier. The men declared that there was no living wage in that year; neither did the collieries pay the owners. A joint conference was held, and the miners' representatives stated that they would have to lay the proposition before the men. A further joint meeting was asked a month later, at which time the decision of the men would be given.

The owners considered the month's delay too long and almost intolerable, and in a meeting held June 30, decided to post notices July 8 to terminate contracts July 28. The men's representatives complained that the owners were bent on a reduction and had violated the agreement that all means should be exhausted before tendering notice on either side. They contended that such notices should not have been given before they knew whether or not the workmen would accept the reduction demanded; and that they were given at a time when statistics showed an upward tendency in prices and a revival in the iron trade. They also asserted that the coal companies were making reasonable profits and good dividends.

On the other hand, the owners declared that prices had been falling steadily since 1890, and in 1893 the collapse in demand and prices was greater and more complete than at any previous time during the last forty years. Many pits were worked but two or three days a week, and the time had arrived when their situation demanded relief. They also asserted that considerable reductions had been agreed to by miners in South Wales, Durham, in Northumberland, and in Scotland, and they could not stand the strain of competition with owners in those districts, favored as they were by lower rates of wages.

At the conference of the miners' federation it was resolved to oppose any reduction in wages, and the men were advised to give notice for an advance of wages equal to the reduction suffered during the previous two years. At the joint conference with the owners on July 21 the latter insisted on the 25 per cent reduction. The reply to the demand of the owners was a refusal to accept the reduction, and a refusal also to refer the dispute to arbitration.

What Mr. Pickard, a representative of the miners in the House of Commons, at that time thought of arbitration is best shown by a statement made to the public through the press. In his opinion the workmen of Yorkshire had been taught by the coal owners within the last fifteen years that arbitration was an instrument which nobody ought to trust. Colliery owners who were now so anxious for arbitration in the South were among those who turned their backs on the judge's award and deliberately tendered notice for a reduction of wages, and enforced it, because they believed the men were not in a position to resist it by physical force. "That settled, in the southern portion of Yorkshire, the question of arbitration on the general wage question for all time. In the western portion of Yorkshire a colliery had been idle close upon a year because the owners of Glass Houghton colliery and the associated owners in their association meetings declared they would not allow the Glass Houghton employers to go to arbitration. Why? Because an independent gentleman would have to be called in as umpire. The workmen asked a high price; the owners offered another price, and this independent gentleman would step in and split the difference, which the owners said would not be a fair decision under the circumstances. That was the argument of the men on the general wage question—the owners were asking for what the men believed they never ought to have, and if an independent umpire were called in to say whether a reduction should take place he would say, 'Yes; this reduction, or the greater part of it, must take effect,' quite independently of whether the trade was good or the owners were making profits, or whether the men were starving while the owners were making profits. This, in his judgment, was a clear exposition as to why the workmen in Yorkshire would not venture into arbitration on these matters."

By the 28th of July, 1893, work had ceased at the collieries within the federated district according to the notices. This act of posting notices of the closing of the collieries before the representatives of the men had an opportunity of consulting the miners was bitterly complained of. On March 20, 1890, an agreement was made with the owners that before a notice was tendered every effort should be made to settle whatever dispute was in existence at the time. A portion of that agreement was: "That with regard to any future wage questions we are prepared to arrange that before any public action is taken with

respect to notices the men's case shall be laid before a committee of the colliery owners in each district or before a committee of the colliery owners' federation, and that the results be made known to the workmen; and, further, that we ask the owners to adopt a similar line of action in the future in respect to any alteration in their workmen's wages."

At a special conference of the representatives of the miners' federation, held in London on August 23, 1893, a resolution was passed that the federation submit to no reduction in wages. They also agreed that if the owners would withdraw the notices of a 25 per cent reduction the miners would resume work at once and not ask for any advance in wages until prices should reach the 1890 level.

This action was communicated to the coal owners, who met in session on August 29. They reiterated their former statements concerning the decreased selling prices of coal as compared with the prices prevailing in 1888 and 1890, when the increase in wages was granted the men, and regretted that the proposal for wages to remain as they were when the notices were given could not be entertained. They also regretted that their original offer to submit the whole dispute to arbitration had not been accepted, and that the attitude taken by the miners' federation afforded no basis for settlement.

On September 1 a meeting of the executive of the miners' federation was held, when it was decided to submit the following questions to a vote of the miners:

I. Will you agree to a 25 per cent reduction in wages, or any part thereof?

II. Will you accept the employers' offer of arbitration?

III. Shall all men resume work who can do so at the old rate of wages?

On the first question the vote stood:

For	226
Against	145, 195
Majority against	144, 969

On the second question the vote was:

For	406
Against	141, 566
Majority against arbitration	141, 160

On the third question the vote was:

For	61, 496
Against	92, 246
Majority against	30, 750

September 15 the conference of the miners' federation heard the vote and urged the men to remain firm against the 25 per cent reduc-

tion, and again expressed a willingness to return to work at the old rate of wages and to meet the owners to discuss, in the interest of the trade, the necessity of their demand being withdrawn.

The coal owners met September 21. They regretted that the miners had reiterated their determination not to accept a reduction in wages, but expressed a willingness to meet the miners' representatives to discuss the proposed reduction.

The owners all the time took the position that the advances given between 1888 and 1890 were based entirely on the advance in the price of coal. The leaders claimed for the men a share in the improved prices and profits. The owners demanded a reduction of wages in 1893 somewhat in proportion to the reduction in selling prices, urging that they showed a disposition to meet and did meet the demands of the men in good times, and the latter should meet the demands of the owners in bad times. The miners met September 29 and resolved "That after reading the letter and the resolution of the coal owners, wherein it is stated the owners will meet a deputation to discuss the reduction in wages, this conference hereby agrees that this federation is not willing to meet the coal owners on this question, so that no false hopes may be held out. At the same time we are willing to meet the owners to reaffirm our former statements, viz., that we are prepared to take the old rate of wages as a normal condition of wages, and pledge ourselves not to seek any advance on the present rate of wages until the 1890 and 1891 prices are realized."

On the 3d of October the coal owners again met and passed a resolution in which they regretted the action of the miners' federation in reaffirming a proposal which had already been considered and declined. "No settlement can be made which does not include a reduction of wages, and as the miners' representatives decline to meet the owners to discuss the question of the proposed reduction they make it impossible to arrive at a settlement by means of such a meeting."

Two months and more had passed since work had ceased at the collieries, and all efforts to find even a common ground on which to discuss the dispute had failed. Each side was as determined as at the beginning of the trouble. Prices of coal had been forced up by the enforced idleness of the mines, and as the situation was becoming acute the mayors of some half dozen cities united in sending a letter, through the town clerk of Sheffield, to the owners and to the miners' federation, requesting them to send deputations to meet with the mayors, and, if possible, to find a basis whereon the dispute might be settled. This resulted in a meeting at Sheffield on October 9, at which the men still proposed "to resume work at the old rate of wages, and after resumption the masters and men try to devise a means of dealing with the wage question which will prevent such dislocation of trade as now exists."

The mayors suggested that the miners accept a 10 per cent reduction six weeks after the opening of the pits and that the two federations should meet at an early date to formulate a scheme for the establishment of a tribunal of conciliation, with the view of dealing with the question of wages.

The coal owners met on October 10, again resolving "that the proposal to resume work at the old rate of wages can not be entertained." They, however, offered to let the miners begin work at a "present reduction of 15 out of the 40 per cent advanced since 1888," and agreed to meet "the representatives of the miners at an early date and to use their best endeavors to formulate and agree upon a scheme for the establishment of a tribunal of conciliation, with a view to dealing with the question of future advances or reductions in wages."

The miners held a conference on October 12 and 13. In a resolution passed they declared themselves still to be "of opinion that no reduction of wages is necessary and none can be accepted." They again expressed a willingness "to resume work on the old terms and immediately after resuming work to meet the owners and try to devise means whereby dislocation of trade may not occur." They also stated that they were prepared to take the old rate as the normal condition of wages, pledging themselves not to seek any advance on the existing rate until the 1890 and 1891 prices should be realized.

The owners met on October 18 and passed resolutions, in which they expressed a willingness to meet the men in an effort to "find a reasonable method of bringing the present disastrous dispute to a close," but they regretted that the proposal of the men could not be accepted. They repeated their offer to agree to a 15 per cent reduction, and at the same time to agree that the reduction should not be taken by either side as a final settlement of the dispute, but merely as a means of removing the present deadlock. They also suggested the submission of a reduction or no reduction to a committee formed of equal numbers of owners and men, with an independent chairman.

These resolutions were forwarded to Thomas Ashton, secretary of the men's federation, who replied that he was debarred from calling any further meeting of the federation so long as the proposed reduction of 15 per cent remained in the way, but that the federation representatives were prepared to meet the owners at any time to discuss the open question.

Secretary Ellis, of the owners' federation, explained the action of the conference of October 18 by stating that the miners were not to be pledged to a reduction before the joint meeting and that the proposed joint committee should have power to decide as to whether the 15 per cent reduction, upon which the miners returned to work pending a settlement, was too much or too little; and if the decision should be

that the reduction was too much, the excess should be refunded to the men from the time they returned to work. On the 25th of October Mr. Ellis notified Mr. Ashton that "the committee of coal owners is prepared to meet the representatives of the miners' federation to discuss the whole question, without prejudice to the position of either party, at an early date."

Such a meeting was held on November 3 and 4, and various propositions for ending the dispute were brought forward by the owners and the men. The former suggested a meeting of an equal number of owners' and miners' representatives, the secretary of each organization and three other persons to act as conciliators, their duty being to inquire into the cause of difference and endeavor to bring about a settlement. If they could not succeed in doing that within —— from the first joint meeting, then the questions unsettled were to be decided by the majority of the board. Pending a settlement work was to be resumed. The 15 per cent in dispute was to be deposited in bank and distributed to employers or workmen in accordance with the terms of settlement. They also expressed themselves as quite prepared to consider the establishment of such a tribunal for the settlement not only of the present, but also of future, differences.

Their alternative proposal was that a conciliation board, to consist of 10 representatives from each side, should be formed forthwith, which board should proceed to choose an independent chairman. It should have power to deal with the existing difficulty and decide the rate of wages to be paid from the resumption of work and to deal with the general wage question. To settle the dispute each side was to have the privilege of presenting evidence to the board for two days, at the close of which either side had the right to ask a decision from the umpire as to the rate of wages to be paid, his decision to be final.

The miners' representatives proposed the following terms: That the men resume work at the old rate of wages until April 1, 1894; that the minimum or standard rate of wages be 30 per cent above the wages rate of January 1, 1888; that a board of conciliation be formed to deal with wage questions in the future from the above-named date; that the board when formed should have power to determine the rate of wages on and from April 1, 1894.

The representatives of the miners met November 4 and resolved to place before the men the offer of the owners to settle the dispute by arbitration.

Before further negotiations were completed the widespread distress and still greater losses caused by the long-drawn-out strike attracted the attention of the prime minister, the Right Honorable William E. Gladstone. After sixteen weeks of effort to arrive at an understanding the two parties seemed almost as far apart as when the trouble began. Mr. Gladstone addressed to the secretary of each organization

a letter, in which he said the prolongation of the dispute could not fail to aggravate the suffering, and he suggested a further conference under the chairmanship of Lord Roseberry, who was not to act as an arbitrator or umpire, but who should "confine his action to offering his good offices in order to assist the parties in arriving between themselves at a friendly settlement of the questions in dispute."

The proposed meeting was held November 17, and after a sitting lasting only several hours the following settlement was effected: That a board of conciliation be constituted forthwith, to last for one year at least, consisting of an equal number of coal owners and miners' representatives—fourteen each. They shall at their first meeting endeavor to elect a chairman from outside, and, should they fail, ask the speaker of the House of Commons to nominate one, the chairman to have a casting vote.

That the board, when constituted, shall have power to determine from time to time the rate of wages on and from February 1, 1894.

The first meeting to be December 13, and the men to resume work at once at the old rate of wages until February 1, 1894.

It was agreed that all collieries, as far as practicable, should be reopened for work forthwith, and that, so far as practicable, no impediment should be placed in the way of the return of the men to work.

The board could not agree upon a chairman, and the speaker of the House of Commons appointed Lord Shand, a law lord of the Scottish bar.

The first meeting of the new board was held in December, 1893, and it did not work very satisfactorily.

In June, 1894, the owners gave notice for a reduction. At first Mr. Pickard refused to authorize Mr. Ashton, the miners' secretary, to call a meeting, because no specific reduction was named, as the men claimed the rules meant. Finally, in the absence of the independent chairman, the representatives of the owners and the representatives of the miners agreed that wages should be reduced 10 per cent, making them 30 per cent above the standard of 1888, and that there should be no further reduction for two years, but the board could raise wages 10 per cent above the standard.

In 1894 the owners pressed for further reduction, but the miners objected, and no agreement being reached by the board, it collapsed. Its weakness lay in the failure to provide the umpire or referee with power to make a decision which would finally settle a dispute.

In 1894 the selling price of coal advanced, and the men began an agitation for increase of wages. Secretary Ashton was instructed to write the secretary of the coal owners' association, asking them to meet the men's representatives to consider the question. After several meetings it was agreed that there should be an advance of 2½ per

The owners pressed for a renewal of the conciliation board,

and it was resuscitated, principally on the old lines, although the minimum wage feature was retained, and the chairman was given the deciding vote in case of inability to agree. No difficulty was experienced, as was the case when the board of 1893 was formed, in selecting the independent chairman. The men's representatives named Lord James, who was accepted by the masters. Provision was made, however, for the selection of a chairman in case of a disagreement, and that power was lodged with the speaker of the House of Commons. The following are the rules:

1. That the title of the board shall be "The Board of Conciliation for the Coal Trade of the Federated Districts."

2. The board shall determine, from time to time, the rate of wages as from 1st January, 1899.

3. The board shall consist of an equal number of coal owners or coal owners' representatives, elected by the federated coal owners, and miners or miners' representatives, elected by the Miners' Federation of Great Britain—14 of each, with a chairman from outside, who shall have a casting vote.

4. The present members of the board are and shall be:

Chairman.—The Right Honorable Lord James of Hereford.

Coal owners or coal owners' representatives.—Messrs. Alfred Hewlett, Walter L. Bourke, William Kellett, T. D. Grimke Drayton, F. J. Jones, J. J. Addy, A. C. Briggs, A. J. Holiday, Fitzherbert Wright, Walter Salmond, Arthur G. Barnes, Henry Dennis, W. Heath, and Captain Harrison.

Miners or miners' representatives.—Messrs. B. Pickard, M. P.; S. Woods, M. P.; William Parrott, Edward Cowey, Thomas Glover, W. E. Harvey, Thomas Chambers, Enoch Edwards, Benjamin Dean, Edward Hughes, J. G. Hancock, Andrew Sharp, William Abrahams, M. P., and Robert Smellie, of whom Mr. Alfred Hewlett shall be president and Mr. B. Pickard, M. P., vice president.

Whenever a vacancy has arisen, from any cause, on the board, except in the office of chairman, such vacancy shall be filled up within one month of its occurrence by the body which appointed the member whose seat has become vacant. Intimation of such appointment shall be at once sent to the secretaries. On the death, resignation, or removal of the first or any subsequent chairman the board shall endeavor to elect another chairman; and should they fail, will ask the speaker for the time being of the House of Commons to nominate one.

5. The meetings of the board shall be held in London or such other place as the board shall from time to time determine.

6. The constituents of the board—i. e., coal owners or coal owners' representatives, and miners or miners' representatives—are, for brevity, herein referred to as "the parties."

7. The parties shall each respectively elect a secretary to represent them in the transaction of the business of the board, and each party shall give written notice thereof to the secretary of the other party, and both such secretaries shall remain in office until they shall resign or be withdrawn by the parties electing them. The secretaries shall attend all meetings of the board, and are entitled to take part in discussion, but they shall have no power to move or second any resolution, or to vote on any question before the board.

8. They shall jointly convene all meetings of the board and take proper minutes of the board and the proceedings thereof, which shall be transcribed in duplicate books, and each such book shall be signed by the chairman, president, or vice-president, or other person, as the case may be, who shall preside at the meeting at which such minutes are read and confirmed. One of such minute books shall be kept by each

of the secretaries. The secretaries shall also conduct the correspondence for the respective parties and conjointly for the board.

9. The secretaries shall, on the written application of either of the parties made by the chairman and secretary of either party for an alteration in the rate of wages, or an alteration of the rules, or for any of the objects mentioned in clause 4, call a meeting of the board within 21 days, at such time and place as may be agreed upon by the secretaries. The application for the meeting shall state clearly the object of the meeting.

10. The president, or in his absence the vice-president, shall preside at all the meetings at which the chairman is not present as herein provided. In the absence of both president and vice-president, a member of the board shall be elected by the majority to preside at the meeting. The president or vice-president, or other person presiding, shall vote as a representative, but shall not have any casting vote. When the chairman is present he shall preside and have a casting vote.

11. All questions shall, in the first instance, be submitted to and considered by the board, it being the desire and intention of the parties to settle any difficulties and differences which may arise by friendly conference if possible. If the parties on the board can not agree, then the meeting shall be adjourned for a period not exceeding 21 days, and the matter in dispute shall be further discussed by the constituents of the two parties, and the chairman shall be summoned by the secretaries to the adjourned meeting, when the matter shall be again discussed, and in default of an agreement by the parties on the board, the chairman shall give his casting vote on such matter at that meeting, which shall be final and binding.

12. All questions submitted to the board shall be stated in writing, and may be supported by such verbal, documentary, or other evidence and explanation as the parties may desire, subject to the approval of the board.

13. All votes shall be taken at meetings of the board by show of hands. When at any meeting of the board the parties entitled to vote are unequal in number, all shall have the right of fully entering into the discussion of any matter brought before them; but only an equal number of each shall vote, the withdrawal of the members of whichever body may be in excess to be by lot, unless otherwise arranged.

14. Each party shall pay and defray the expenses of its own representatives and secretary, but the costs and expenses of the chairman, stationery, books, printing, hire of rooms for meeting, shall be borne by the respective parties in equal shares.

THOS. RATCLIFFE ELLIS,
THOMAS ASHTON,
Joint Secretaries of the Board.

JANUARY, 1899.

In January, 1899, the men applied for an increase of $7\frac{1}{2}$ per cent. After a long discussion the rate was granted, 5 per cent being paid May 1, 1899, and $2\frac{1}{2}$ per cent October 1, 1899. Under the rules and custom when an increase or decrease is demanded by one side or the other a fixed sum must be named, and the chairman must decide the question submitted to him. He must give either the per cent demanded or nothing; there can be no splitting the difference. This provision overcomes an objection to the independent umpire which is frequently urged, as the disposition of such an official, when he can play the part of a compromiser, is to give something to the side making the demand; and this is especially true when the umpire belongs to the political class and has the chance to make a play for popularity.

The following views of the value of the board of conciliation were obtained from the representative of the owners and the secretary and parliamentary member of the men:

Mr. Ellis, the masters' representative, said no technical knowledge is required for the independent chairman. He thinks it best to have a man not connected with the trade, for both sides are soaked with their own views, but instead a well-balanced, judicial man, who can weigh arguments and decide impartially. The weakness in the present board is that there is nothing to enforce the decision. A man can give two weeks' notice to quit, and if an employer does not abide by the decision pressure is put upon him by the masters' board; but he can withdraw from the federation and forfeit the money he has paid to the association.

To make the conciliation board successful Mr. Ellis thinks—

1. Both sides should have large funds. If each side is well supplied with money there is hesitation about wasting it; and as a fight may make the last condition worse than the first, each will try to avoid all trouble and do his best to bring about a friendly sentiment and settlement. What regulates the mass regulates the individual.

2. It is essential to get hold of the dispute before stoppage of work, before both sides have their backs up, before the men have formed and expressed opinions which they don't like to take back. If that can not be done, one must wait until the two sides are about tired.

3. It must not be too big a question to be decided, and men should be conciliators on both sides. Men should be selected for the board who individually have considerable personal interest to be settled. They should be important men in the trade, with important interests at stake, and there should not be too many men on the board.

Asked whether the decisions of the board are carried out, Mr. Ellis replied that he could not give a case where the masters would not abide by the decision. The decision is either in favor of a reduction or an increase of wages. If in favor of a reduction, the masters would be glad to abide by it; if against, the men would see that they carried it out.

As showing the spirit animating the men and their leaders in the coal trade, he cited an instance to their credit which occurred in 1898. When the agreement for a 2½ per cent advance was reached in 1898 the men did not like it, and some who were on the conciliation board were not satisfied. Others who were not on the board liked it still less and criticised the action severely and bitterly, especially in Lancashire. The men took a ballot to decide whether or not they would accept and approve the decision of the board. Some of the delegates opposed it actively, declaring that their representatives on the board had been outwitted. At that juncture Mr. Pickard and others issued a manifesto requiring courage, in which they declared that the decision

was a boon to their interests and should not be declined. It was accepted, and Mr. Ellis said it showed that bargains could be made with the hope of having them carried out; and if the leaders use their influence with the men the decision will be enforced. There is no need to despair if the delegates will always use their efforts to have the decisions carried out by each side.

Thomas Ashton, the secretary of the miners' federation, stated that the boards formerly tended to reduce wages, but the present one has the support of the men because of the minimum wage feature. According to the agreement now existing, the wages can not go below 30 per cent above the tonnage rates of 1888, nor can they rise above 45 per cent of such rate. Had not that concession been granted by the owners the majority of the men would not have agreed to the terms of settlement. Mr. Ashton thinks the meetings have led to a better understanding between the masters and the men. . When meetings of the board are called the simple question of wages, to be reduced or increased, is discussed. Since the formation of the new board there has been no deviation from the award and no need for the services of the independent chairman. Both owners and men prefer to arrive at a mutual agreement without his aid.

Mr. B. Pickard, one of the representatives of the miners in Parliament, does not favor arbitration of the compulsory character. What is formed in the coal trade is not a board of arbitration but of conciliation, the first of which he does not regard as good for either masters or men. Conciliation, in his opinion, is a better way of settling disputes than arbitration—in the sense that either side must take what a third person would declare to be the right thing. Both sides believe in conciliation, for they much prefer to settle their disputes themselves, and Mr. Pickard believes there never will be a better way of settling trade disputes under existing conditions. When a mutual agreement is reached it is always carried out, but such is not the case where there is an umpire. A hard and fast ruling, unless equitable, is seldom acceptable and frequently is not carried out. Mr. Pickard has always favored a minimum wage. With that obtained for the men it will not matter how much the masters compete with each other, for his position is that the men should not suffer from competition.

NORTHUMBERLAND COAL TRADE.

The Northumberland Miners' Association, which was formed in 1862, now numbers between 22,000 and 23,000 members. At that time trade was bad and the masters wanted a yearly bond, but the men could not agree and the scheme was abandoned. The men's leaders then took steps to organize a union, but with only partial success, for 'til 1870 not more than 7,000 had been persuaded to join. In 1872

there was a boom in trade and prices rose rapidly. The men, wishing to share in the increase, united in larger numbers, and in 1872 were fairly well organized.

Before that date only local demands were made, but at that time there was a general demand and the owners agreed to meet the men as representatives of the union. In March of 1872 the men secured a general advance of 10 per cent, which marked the beginning of negotiations as an organization with the owners. For a year they met from time to time, securing several advances. By the end of 1873 prices tumbled and the men submitted to three reductions in 1874. The masters demanded a fourth reduction in the early part of 1875, agreeing to submit their case to arbitration. At first the men hesitated, but finally yielded, with Mr. Kettle acting as umpire. In November of the same year there was another arbitration. After this latter demand was dismissed by Lord Herschel, the owners refused to submit to arbitration any other decreases asked. Notice was given in 1877 of still another reduction. This the men resisted, and a 9 weeks' strike ensued, lasting from December, 1877, to February, 1878. When the men returned to work it was at a reduction of 12 per cent. Trade was bad enough when the strike began, but it was much worse after it ended.

In November, 1878, the masters requested still another reduction of 10 per cent. The methods of settling the differences were not beneficial to either side, and both were anxious to devise some system to do away with higgling and striking, both so injurious to the trade. The men suggested the introduction of a sliding scale. At that time conditions could not have been worse under any system, and the masters eventually agreed to the suggestion. From 1874 to 1879, on account of the union being stronger than at any previous time, the owners had greater difficulty in reducing wages elsewhere. The product of the mines in Northumberland district decreased from 8 to 10 per cent between 1874 and 1879, whereas competition increased in the same proportion, while as soon as the sliding scale was introduced the output increased more rapidly than in any other districts.

In March, 1883, the scale was slightly amended in favor of the men. In 1886 trade again became bad; the masters found they could not pay the wages agreed upon, and gave notice to the men to terminate the scale, at the same time demanding a reduction of 15 per cent. The men resisted and a strike ensued, which lasted 17 weeks, ending in May, 1887. The men lost the struggle and resumed work with a 12½ per cent reduction. With 1888 trade improved, and at the close of the year the men asked for and obtained an advance of 5 per cent. Improvement continuing during 1889 and 1890, the men received several advances by negotiation between the representatives of the two associations.

In 1891 there came a reaction in the trade and the masters again secured certain reductions. Thinking that if many more were given another strike would occur, each committee urged the reestablishment of the sliding scale, or some other method by which changes could occur automatically. The men empowered their representatives to get the owners to agree to the adjustment of wages, and now auditors examine the books every three months and make report to the men.

At that time the men preferred a conciliation board rather than a sliding scale; but the masters at first could not see their way clear to agree to it, though they never refused entirely. There were several interviews with the masters, who finally agreed to the formation of the board with 15 representatives on each side, and an independent chairman, who sat at the table while negotiations were proceeding, and in case the representatives were unable to arrive at a decision was empowered to give his deciding vote. The board continued in existence for more than two years, during which time four or five changes in wages occurred, usually against the men. In only one case was the umpire called upon to give decision.

Mr. Young, the men's secretary, stated that the board worked admirably. When the representatives of the men saw that trade was so bad as to justify a reduction, they took the responsibility of agreeing to it without calling in the umpire. In the opinion of the whole board no system or method for the regulation of wages could have worked more satisfactorily than did this. Notwithstanding that opinion the men, because wages had been reduced in consequence of fall in prices during the existence of the board, unfortunately, in Mr. Young's opinion, decided to terminate it. When its existence ceased, they reverted to the method of meeting the owners quarterly to hear reports of accountants read and to decide what the wages should be.

Conciliation boards are preferred by Mr. Young, who thinks they most easily settle all matters in dispute between the masters and men.

For the settlement of local questions there is a joint committee, formed in 1872, which continues at the present time. Its functions are to consider and settle any matter at any colliery which has not been settled by the men and the manager of that particular colliery. It is composed of 6 representatives of the workmen and 6 representatives of the owners, with an independent chairman, who is the county court judge for the district. Since the formation of the committee an average of 12 cases have been considered every 2 months at the stated meetings. It has worked so successfully that not a single decision was protested against from 1872 to 1891, and no attempt was made to set aside a decision. Practically the same can be said down to the present time. Each side has loyally carried out the decision of the committee.

Friendly relations existing between employers and men in the

Northumberland district are shown by the expressions of confidence and good will uttered at the dedication of Burt Hall, Newcastle, the handsome and permanent home of the miners' association. During the early years of this miners' association its membership was only between 3,000 and 4,000; now it numbers nearly 23,000. At first the employers would not recognize the union, but that point was finally won; and then followed the formation of the joint committee, which settles all minor disputes arising in the workings of the collieries in the county. The committee was formed of 6 members on each side, with an independent chairman. It has worked without friction, has avoided stoppages and troubles of all kinds, and was the forerunner of a conciliation board, which was formed in 1895.

In his remarks at the dedication of Burt Hall the secretary of the men's association said they all knew the methods by which this business was transacted in the early days of their association. Questions were judged more by feeling than by reason. Now, however, reason prevailed, and they met the owners on terms of perfect equality. They sat at the same table, and if any grievance could be shown to exist they had an independent gentleman who weighed their reason in the balance of a trained judgment, while if they were unable to settle the matter themselves he fairly and frankly decided the issue. "It is impossible to make further progress so long as the present wage system continues. While the ideals of all had not yet been realized, those of their earliest leaders had been fulfilled. At the time of the organization of the miners' association the leaders and men were thought to be moderately extreme; now they are extremely moderate."

The president of the men's association said, when in 1870 the representatives of the union began to have meetings with the owners, they began to understand each other better, and a mutual good feeling sprang up that found expression in the joint committee, which had up to that time succeeded in settling every local question that had arisen in the district. The representatives of the men did not think much of the owners at first, but when they came to know them they did not prove cold blooded or heartless, but often generous men. At the last strike they found the chairman of the owners' association displaying the characteristics of a true gentleman, full of sympathy, a lover of fair play, a friend of the workman.

One of these workmen said when they could see the realization of the high ideal for which so many had wrought, that ideal time when employers and employed could meet upon a common platform, they could fully realize that they had a common interest. He believed there was a right adjustment of wages that was beneficial to employers and employed alike. The spirit of conciliation had been growing of late among the Northumberland miners and mine owners, but he thought it had never been seen in a stronger light than on that day

when they had the president of the coal owners' association opening to them the door of the hall of the miners' trade union.

The president of the coal owners' association said when he first knew anything about collieries it was far from his belief that the time would ever come when their affairs should be transacted as they had been during the last 25 years by their respective bodies meeting in friendly conference. In those days negotiations were always conducted between the individual owner and the men. Then, too, the opinion on each side was unfriendly to negotiation; but things have been changed for the better. It was far wiser to have a *modus vivendi* than hostile meetings and strikes. In the old days when they did not meet the men they were, no doubt, misrepresented to each other, and indirect information as to the feeling on any matter was very different from direct statements face to face.

Mr. Burt, M. P., after whom the hall was named, in his speech referred to the better understanding between the two parties and declared that recognition of the union and the hearing of the men's representatives and their grievances were two steps that started them in the right direction. From that they had gone on "until they had reached a stage beyond which they could not go unless they completely altered the industrial system. No doubt it was still capable of improvement and would in good time be improved, but until that was accomplished, so long as they had employers and employed—a very old distinction; if not as old as Adam, certainly as old as Abraham—until they got that entirely abolished they could have no better method of settling the differences that necessarily arose between employers and employed than their conciliation board, trusting to reason and common sense for the settlement of those differences rather than to the instrument of force in the shape of strikes or lock-outs."

The Northumberland Miners' Mutual Confident Association, which was established in January, 1863, provides, in its rules, that the members of a branch shall not give notice of a strike until their case has been placed before the managing committee for examination and approval. All votes must be taken by ballot, and a two-thirds vote must be registered in favor of the strike before it can be countenanced and supported by the association.

The rules governing the joint committee are as follows:

1. That the object of the joint committee shall be to discuss all questions (except such as may be termed county questions, or questions affecting the general trade) relating to matters of wages, practices of working, or any other subject which may arise from time to time at any particular colliery, and which shall be referred to the consideration of the committee by the parties concerned. The committee shall discuss all disputes and hear evidence, and their decision shall be final.

2. The committee shall consist of 6 representatives chosen by the miners' union, and 6 representatives chosen by the steam collieries defense association, and a

chairman to be chosen annually by the two associations, which chairman shall have a vote.

3. At meetings of this committee it shall be deemed that there shall be no quorum unless the chairman and at least three members of each association be present.

4. Each party to pay its own expenses.

5. Should any alteration of or addition to these rules be desired, notice of such change shall be given at the meeting previous to its discussion.

6. If any member of the committee is directly interested in any question under discussion, he shall abstain from voting, and a member from the opposite party shall also abstain from voting.

7. That an agenda of the cases to be heard by the joint committee shall be sent out at least four clear days before each meeting, and it shall not be competent for any member to propose any other matter for discussion.

8. When both owners and miners have cases on the agenda paper, one case from each side shall be considered alternately.

9. That if any case is referred to arbitration, and the arbitrators fail to agree as to the appointment of an umpire, the chairman of the joint committee shall make the selection.

10. All applications for advances or reductions in any portion of a pit shall open out the question of the prices paid to the same class of workmen throughout the whole of the pit.

11. That before any change in hewing prices be entertained it must be clearly shown that the average wage on which the claim is made is at least 5 per cent above or below the county average.

12. July 13, 1878: That in future both the owners and the men give not less than 10 clear days' notice of any application to the joint committee. The notice between the two associations to remain as at present.

May 12 and July 14, 1883: It was decided that in future all notices should be given in writing, and either signed by an official or stamped.

13. July 8, 1893: That the rule be that the three pays paid before the written notice be taken, excluding the first and last pays of the quarter, but that no evidence as to any pays be excluded.

14. July 8, 1882: Where 2 pits are cavilled through they are to be considered as 1, and the average of the whole taken.

15. November 10, 1883: Decided that all pays be considered to commence on the Monday, each Sunday's wage to come into the following pay.

16. July 12, 1879: The county average being taken at 4s. 9½d. [\$1.17], it was agreed that the increase of hours, where it leads to an increase of work, should be taken at 4½d. [9 cents] as the maximum, but each case to depend on its own merits. It is understood that no owner can claim any reduction unless the pit's average is at least 5 per cent above 5s. 2d. [\$1.26]. In case of any colliery claiming an advance, the county average is to be taken at 4s. 9½d. [\$1.17] plus any advantage which may have arisen from the increase of hours.

17. May 10, 1890: It is agreed as a permanent settlement of the question that for the purposes of joint committee the hewers' basis average wage of soft coal collieries be 4s. 7½d. [\$1.13] for short hours and 5s. [\$1.22] for long hours; but that in any seam when hewers are required by the manager to nick or shoot the coal in other than winning or narrow places the average wage of steam coal collieries shall obtain.

18. November 13, 1880: In future advances and reductions to commence on the first pay commencing after the decision.

19. July 9, 1881: It was agreed that in future reports and awards should state the date at which any contemplated change should take place.

20. January 18, 1879: It was agreed that in future no case can be reheard until one meeting intervenes.

21. January 12, 1895: The joint committee recommend that agreements settling cases should be confirmed by this committee and recorded on the minutes.

22. April 26, 1879: The chairman to be reelected annually at the meeting held on the second Saturday in May, the question of his reelection having been previously discussed at the preceding bimonthly meeting of the joint committee.

October 16, 1897.—Rules 10 and 11.—These rules do not apply where application is made for a price to be fixed in consequence of any bona fide change in the mode of working, or for a new seam in regard to which prices are not already fixed.

THE BOOT AND SHOE TRADE.

LEICESTER.

In Leicester there are about 250 boot and shoe factories, which have sprung up in the past 40 years. The federation numbers about 11,000 men.

In 1895 there was a serious lockout. The manufacturers introduced machinery, and there was a question of the quantity of work the men had to do to earn the wages, these being considerably lower than the amount the men could earn when doing piecework. With the machines the work was paid for by the dozen. The work in dispute represented an average of from 20 to 30 per cent of the week's earnings. These matters were discussed by the arbitration board, but the members were unable to come to any reasonable understanding as to what prices should be paid for the machine work. The result was a deadlock in the board, which brought about instructions from the men's representatives to work according to a statement compiled from the general body of workmen engaged in connection with machinery in the various firms of the town. The employers finding that they could not get the desired amount of work initiated the policy of discharging numbers of men unwilling to do the task set for them. This brought about open hostilities.

The employers refused to submit the question to the umpire, the reason for such refusal being that the machinery was in use so short a time that they should be the judges of what the machines should produce and what wages should be paid. The machinery had been in use almost 3 years. They refused to consider or arbitrate on the question of a piecework statement for machinery. A 6 weeks' struggle resulted, which applied to every boot and shoe center in the Kingdom. It was finally settled through the medium of the board of trade, the board coming forward and offering their services, and Lord James being appointed umpire by mutual agreement. The decision was the terms of settlement, which are appended and which gave power for a statement for machinery to be drafted for the trade generally and also contained new rules for boards of arbitration and conciliation in all centers. The terms of settlement contained a provision for the depositing of "certain sums in the hands of trustees" as a guaranty

for the carrying out of the provisions of that agreement. A trust deed was executed by which each side deposited £1,000 (\$4,866.50) as a fund from which fines for breaches of the rules could be levied. The sections referring to the manner of deciding the fine and its amount are as follows:

If any dispute or question shall at any time arise between the federation and the union as to the breach or nonfulfillment of any of the provisions contained in the settlement or in any decision, agreement, or award of any such local board as aforesaid, or of any arbitrators or umpire of any such local board, whether such breach or nonfulfillment shall have been committed by the federation or by the union, or by any local or district association of the federation, or by any local or district branch of the union, or by any body of manufacturers belonging to the federation, or any body of workmen belonging to the union, then and in every such case every such dispute or question shall be referred for determination to the Right Honorable Lord James, of Hereford, or other person for the time being appointed to act as umpire for the purposes of the settlement and of these presents.

If the said umpire shall determine that any of the provisions of the settlement or of any such decision, agreement, or award as aforesaid has been broken or not fulfilled by any of such bodies or persons as aforesaid the same shall, subject to resolution 9 of the settlement and due notice of the breach of the provision therein referred to, such notice to be given by the secretary of the federation or the general secretary of the national union, as the case may be, be deemed to have been broken by the federation or by the union, as the case may be, and the umpire shall have power to determine that all or any part of the sum deposited with the trustees by the federation or by the union, as the case may be, shall be forfeited to the other of them in whose favor the award shall be made, and by his award to determine the amount to be so forfeited, and such amount may include a sum for costs of the reference and award, which shall be in the discretion of the said umpire.

With very few exceptions the terms have worked in a very satisfactory way.

The secretary of the Leicester union stated that a better and sounder feeling, which grows steadily, exists between the employers and the men. Mr. Cort, the secretary, is chairman of the board, the presidency alternating between the two sides, and he is a strong upholder of the principle of conciliation and arbitration, which he thinks is much to be preferred to anything heretofore tried. There have been important questions in dispute, and occasionally some "hitches" have occurred, but the board has finally settled them all. It meets once a quarter, whether there is business to be transacted or not. Meeting about the same table, coming face to face and discussing their difficulties in a calm, judicial, parliamentary way brings the opposing sides closer together and leads to a more friendly feeling. The men, the secretary said, are loyal to arbitration.

A. W. Chamberlin, secretary of the manufacturers' board, speaking from their standpoint, wished to be quoted as heartily favoring the board. He regards conciliation and arbitration as the only reasonable and satisfactory way to settle differences and disputes between the two classes.

NORTHAMPTON.

Of the 140 factories in Northampton probably one-half belong to the federation. There are 9,000 workmen in the shoe trade there. Within recent years there has been a great diminution of trouble, owing to the extension of day work, by which the men can earn from 28 to 34 shillings (\$6.81 to \$8.27) per week. Men stifle work so that the output does not exceed piece-day wages. The manufacturers think they get better work by the day.

Mr. George Frederick Lea, secretary of the employers of Northampton, said that at the meetings of the board only disputes are treated, and the manufacturers decline to discuss general conditions of trade. The men would like abstract discussion, but it is ruled out. The board does not bring the workmen as a body in contact with the employer. Before 1895, the year of the great strike, there was bitter feeling on both sides; since then it has been much modified. It is a case of armed neutrality, each side working for advantages and neither putting arms about the neck of the other. According to Mr. Lea, the employers consider that the board prevents mutinous and quarrelsome feeling, which is accomplished by prompt and fair action of the board, which always stands ready to deal, at a moment's notice, with any trade grievance. Even with the board they are liable to an unauthorized strike—which is rare, indeed—but which, when it does occur, is nipped in the bud. One took place in the summer of 1898, when 70 men went out. They had no grievance and the union officials, having them well in hand, persuaded them to return to work. Formerly their action would have created a hubbub and would have spread to the other shops. This example was quoted to show the moral effect of the conciliation and arbitration board.

The existence of the board is beneficial in a money way to both sides because, as in many other trades, work is continued while the matter in dispute is being dealt with by the proper tribunal. That trade matters proceed so smoothly is due to the existence of the board, and peace and welfare depend largely upon its continuance. It is a simple and satisfactory way of getting on. Both sides adhere to the decision; there is no such thing with them as repudiation. The board acts only with union men. The latter keep an eye on the nonunion men to see that they do not take work out of their class and do not work under conditions not agreed upon. The manufacturers do not care whether a man is in or out of the union; but they do insist that nonunion men shall be treated fairly by those in the union.

In the Northampton branch of the National Union of Boot and Shoe Operatives there are about 3,000 men. It was established in 1874, and now owns offices and a club house. The president and the secretary joined in saying that day work is increasing and piecework

decreasing. As a result there are fewer disputes. The present board at Northampton was formed after the big local strike of 1887, but there was an informal board in 1885, according to the minutes. The board has fixed the time at 54 hours a week, maximum, and the wages for lasters and finishers at 28 shillings (\$6.81), minimum.

The men's officials thought the board has been the means of terminating differences which might have resulted in withdrawals. They had settled as many as fourteen differences in one afternoon. The secretary is strongly in favor of the board. The more he sees of it the more convinced he is that it is the proper method of preventing and concluding disputes. There is a growing feeling, he thinks, in favor of arbitration, and some feeling in favor even of compulsory arbitration. The men feel that while the voluntary arbitration may be a little slower, it is surer, and better than laying down tools, and fighting, because every settlement is down in black and white. It is hard to convince old men, accustomed to laying down their "kits," that arbitration is better; but the young men are being trained to it. Formerly the operatives lost the day, and gained nothing; now no time is lost while the dispute is being decided. At Northampton under the piece system there are 70 or 80 extras, nearly every one having been gained by arbitration.

As to the relations between the employers and the men, the officials thought the board did not have much appreciable effect. The representatives are so few that not much is effected in a social way; but the men who are usually the same do find out the fair and the unfair employers.

The rules of the National Union of Boot and Shoe Operatives provide for the attempted settlement of disputes by conciliation and arbitration. The duty is placed upon each branch to assist the council in the formation of boards of conciliation and arbitration between employers and workmen; and where disputes are submitted to such board, its decision or the decision of the referee shall be final. It is further provided that if any branch or any member of any branch shall refuse to respect such decision the council shall have the power to refuse the union's support. Power is given to the council to arrange with the employers' federation for representatives of the union and the federation to meet, discuss, and, if necessary, submit to an umpire all matters in dispute between the two bodies.

The terms of settlement which were agreed to after the strike of 1895, and which are still in force, are as follows:

We, the undersigned representatives of the Federated Associations of Boot and Shoe Manufacturers and of the National Union of Boot and Shoe Operatives, agree to the following terms of settlement of the dispute in the boot and shoe trade on behalf of those whom we represent:

1. This conference is of opinion that a piecework statement or statements for lasting and finishing machine workers and those working in connection therewith are

desirable, such statements to be based on the actual capacity of an average workman, any manufacturer to have the option of adopting piecework or continuing day work; it being understood that the whole of the operatives working on any one process shall be put on one or the other system, which shall not be changed oftener than once in six months. Heeling and sewing to be regarded as separate processes.

2. This conference is of opinion that a piecework statement for weltd work at Northampton should be prepared on the principle laid down in the above resolution, viz, "the statement shall be based on the actual capacity of an average workman," employers having option as laid down in that resolution with regard to payment by the time or piece.

3. That for the purpose of carrying into effect the last two resolutions, joint committees be appointed as follows:

(a) A joint committee of representatives of the employers and workmen, four of each, to determine the principles and methods of arrangement and classification on which piecework statements for machine workers shall be based, such committee to hold its first meeting on May 5, 1895, at Northampton, for preliminary business.

(b) Joint committees composed of representatives of employers and employed, four of each, to prepare such statements for their respective localities in accordance with the principles laid down by the above joint committee. Such committees to hold their first meetings with the least possible delay after the completion of the work of the above joint committee.

(c) A joint committee to prepare a statement for weltd work for Northampton, composed of representatives of employers and employed, four of each, such committee to hold its first meeting on May 5, 1895, for preliminary business.

Such committees shall take such evidence and obtain such information as they may think fit for the purpose, and each shall appoint an umpire to determine points on which they fail to agree. Failing agreement on the part of any of the committees as to the appointment of umpires, the appointment shall be made by the president of the federation and the general secretary of the union, or if they fail to agree by Sir Henry James.

4. That the various local boards of arbitration and conciliation, consisting of equal numbers of representatives of employers and workmen in the district, be immediately reconstituted, and their rules be revised so far as necessary with a view to greater uniformity by a joint committee of representatives of employers and employed, four of each to be appointed forthwith. The revised rules to be submitted to and adopted by the local boards, with or without amendment in matters of detail. Pending the completion of this revision the former rules to be in force, but only questions of classification and other minor local questions not involving matters of principle to be entertained in the meantime, with the exception of the question of the minimum wage for clickers and pressmen in centers where notices have already been given to local boards.

5. That such boards when reconstituted shall have full power to settle all questions submitted to them concerning wages, hours of labor, and the conditions of employment of all classes of work people represented thereon within their districts which it is found impossible to settle in the first place between employers and employed, or secondly between their representatives; subject to the following conditions:

(a) No board shall require an employer to employ any particular workman, or a workman to work for any particular employer, or shall entertain any question relating to such matters, except for the purpose of enabling a workman to clear his character.

(b) No board shall claim jurisdiction over the conditions and terms of employment of work people outside its district; provided that no actual work shall be sent out of a district which has been the subject of an award in that district.

(c) No board shall interfere with the right of an employer to make reasonable regulations for timekeeping and the preservation of order in his factory or workshop.

(d) No board shall put restrictions on the introduction of machinery or the output therefrom, or on the adoption of day or piecework wages by an employer in cases in which both systems have been sanctioned, subject to the conditions prescribed in resolutions 2 and 3. No question referred to in subsections (a), (b), (c), (d) shall be made a matter of dispute by the union.

6. That it is desirable and necessary to provide financial guarantees for duly carrying out the provisions of this agreement, and existing and future awards agreements, and decisions of boards, arbitrators, or umpires, so long as they do not contravene the provisions of this agreement; and that a scheme be at once prepared for depositing certain sums in the hands of trustees for that purpose.

7. That the committee intrusted with the revision of the rules of local arbitration boards be instructed to insert provisions—

(a) To carry the last resolution into effect forthwith. If not agreed upon by both sides, the conditions and terms of the trust to be referred to, and finally settled by, Sir Henry James.

(b) That in future all awards and decisions shall specify a date before which neither side shall be competent to reopen the question.

(c) That where a minimum wage has been fixed and is in operation, and a proposal is made to change it, the board or umpire, in giving a decision or award, shall take into account the length of time which has elapsed since the question was last determined, and the conditions existing at the two dates, respectively.

The notices already given by the union for an advance on the minimum wage to clickers and pressmen shall be held to be good notices to the arbitration boards for the districts to which they refer, and shall be dealt with forthwith.

8. No strike or lockout shall be entered into on the part of any body of workmen, members of the national union, or any manufacturer, represented on any local board of arbitration.

9. That if any provision of this agreement, or of an award, agreement, or decision, be broken by any manufacturer or body of workmen belonging to the federation or national union, and the federation or the national union fail within ten days either to induce such members to comply with the agreement, decision, or award, or to expel them from their organization, the federation or the national union shall be deemed to have broken the agreement, award, or decision.

10. That any question as to the interpretation of these terms of settlement be referred to Sir Courtenay Boyle, whose decision thereon shall be final and binding on both parties.

That Sir Henry James be requested to act as umpire to determine any other disputed points between the federation and the national union arising out of this agreement.

Only once since the settlement was made in 1895 between the Federated Associations of Boot and Shoe Manufacturers and the National Union of Boot and Shoe Operatives has the umpire, Lord James, been called upon to make a decision of award for breach of the compact.

On the 20th day of February, 1899, a strike occurred at the shoe shop of a London firm, a member of the federated association. The trouble arose over the classification of material. The proprietor expressed a willingness to submit the matter to the board of arbitration for classification, but the men refused to appoint one of their number to the board and prevented this from being carried out.

The manufacturers' association made demand for an award of damages from the trust fund for violation of the terms of settlement, which provide that "no strike or lockout shall be entered into on the part of any body of workmen, members of the national union, or any manufacturers represented on any local board of arbitration;" and of the rules of the boards of arbitration which provided that there should be no suspension of work either at the instigation of the employers or workmen.

The London branch of the national union was never anything but hostile to the terms of settlement, and the strike, it was asserted, was undertaken as a challenge, all offers of the employer to submit the dispute to arbitration being rejected, though the firm did agree that the men should be allowed one-half what they asked pending the ultimate settlement by the board. Even this did not secure continued work by the men, the business suffering so severely from the strike that the proprietor became bankrupt. When this demand for compensation was made many felt that the testing time of the value of the terms of settlement had come. Lord James heard each side, and on the 10th of June last rendered the following decision:

LONDON CASE—BETWEEN THE FEDERATED ASSOCIATIONS OF BOOT AND SHOE MANUFACTURERS OF GREAT BRITAIN AND THE NATIONAL UNION OF BOOT AND SHOE OPERATIVES.

Whereas I, the undersigned, being the umpire named in the trust deed bearing date the 8th day of March, 1898, entered into by the above parties, have had brought before me by the above-named federated associations a request to adjudicate upon a disputed point arising out of the agreement of April 19, 1895, viz, the claim of the federation for damages to be paid by the national union out of the guaranty fund vested in the trustees under the provisions of the trust fund dated the 8th day of March, 1898, by way of compensation in respect of the following breaches of the terms of settlement dated the 19th day of April, 1895:

1. "The strike which took place on February 20, 1899, and which has since been continued and is now in operation at the factory of Mr. W. S. Clark, Hackney, London, a member of the London federated association, being a breach of resolution 8 of the terms of settlement."

2. "The refusal of the London workmen to appoint representatives to the London board of conciliation and arbitration for the settlement of disputes, being a breach of resolution 4 of the terms of settlement."

And whereas I have considered the above claims and the evidence and arguments placed before me by the representatives of the above parties, now, I hereby determine that out of the sum of £1,000 [\$4,866.50] deposited with the trustees named in the said trust deed by the above-named union the sum of £300 [\$1,459.95] shall be forfeited and paid to the above-named federation.

JAMES OF HEREFORD.

JUNE 10, 1899.

On noticing this award the Monthly Report of the National Union of Boot and Shoe Operatives said:

The fine of £300 [\$1,459.95] imposed on the union for the breach by its members we hope will be a warning to executives not to

break away from rules and agreements entered into, for while the agreements are in existence we have every desire that they shall be honorably carried out by both sides.

The rules governing the Leicester conciliation and arbitration board are similar to those in Northampton and other centers. They are:

I. The board shall be named the Board of Conciliation and Arbitration for the Boot and Shoe Trade of Leicester.

II. The board shall be deemed to be constituted under, and bound by, the terms of settlement arranged at the conference held at the offices of the board of trade on the 10th day of April, 1895, between representatives of the Federated Associations of Boot and Shoe Manufacturers and the National Union of Boot and Shoe Operatives.

III. That the terms of settlement mentioned in the preceding Rule II, and which are set out in the schedule hereto, must be deemed to apply to the proceedings of the board, and the board shall have no power to override or amend such terms of settlement or to make rules which shall in any way contravene them.

In accordance with the terms of settlement the board shall have full power to settle all questions submitted to it concerning wages, hours of labor, and the conditions of employment of all classes of work people represented thereon within its district which it is found impossible to settle in the first place between employer and employed, or, secondly, between their representatives.

IV. That every statement of wages, provision for minimum wage, regulations as to hours of labor or conditions of employment, decision of the board, and award of arbitrators shall apply in all cases where an employer and his work people are represented by the board: *Provided*, No board shall claim jurisdiction over the conditions and terms of employment of work people outside its district. But no actual work shall be sent out of a district which has been the subject of an award in that district.

V. That the board shall be constituted as follows: Six representatives of the manufacturers and 6 representatives of the workmen, residents in the district, 3 of each to form a quorum, the representatives to be elected by a special or general meeting of their own bodies, who shall serve for one year and be eligible for reelection; that no member of the board shall vote upon a question affecting an establishment in which he is directly interested as an employer or workman.

VI. That the board shall at its first and annual meetings elect a chairman, vice-chairman, secretary, and committee of inquiry consisting of 2 manufacturers and 2 workmen, or appoint sectional or subsidiary boards consisting of 4 manufacturers and 4 workmen, who shall hold office in like manner to the board. In any case where two candidates proposed for the chairmanship are of different classes, and the votes recorded for them are equal, the candidate belonging to the class from which the chairman was not elected in the previous year shall be declared to be elected.

VII. That the board at its first meeting elect an umpire, or, in case of disagreement, each side shall, within 7 days, elect an arbitrator, to whom shall be remitted for arbitration any question referred to the board under the board of trade terms of settlement which it is unable to settle or determine. Should the two arbitrators not agree, the question shall be referred to an umpire appointed by themselves, or, failing such an appointment, to an umpire to be appointed by the president of the board of trade for the time being. The decision of the umpire in each case shall be final and binding on all parties. In case of the death or resignation of an umpire or arbitrator his successor shall be appointed at the first subsequent meeting of the board.

VIII. The question whether the representatives of the press shall or shall not be admitted to any of the meetings of the board shall be determined by the majority of votes of those present. In case of the numbers of those voting on such question being equal the chairman may give a second or casting vote.

IX. That the board shall meet at such times as it may determine, but not less often than once a quarter, and on a requisition signed by 3 of its members (specifying the nature of the business to be considered) being lodged with the secretary, who shall within 7 (but not in less than 3) days notify the whole board of such meeting, stating the terms of the requisition.

X. That all questions submitted by the committee of inquiry to the board for consideration, and by the board to the umpire or arbitrators for adjudication, shall be embodied in writing, stating clearly the nature of the question or dispute at issue, such statements to be lodged with the secretary at least three days prior to the board meeting or sitting of umpire or arbitrators. Notice of other business to be brought before the board shall be given whenever practicable, but the order in which such business shall be taken to be left to the board.

XI. That if at any meeting of the board both the chairman and vice-chairman are absent, the majority present shall elect a chairman. The chairman shall only have one vote.

XII. That if at any meeting of the board the number present is unequal, the right of discussion is reserved to all; but whichever body is larger than the other must withdraw by arrangement so many of their colleagues as are in excess before a question is put to the vote.

XIII. That in case of resignation, death, or continued nonattendance of any member of the board, that side of the board to which such member has been elected may choose another person to fill up the vacancy, who shall serve until the board retires.

XIV. That the procedure in cases of disputes between an employer and his workman should be as nearly as possible the following:

(a) The workman shall first bring the matter before the employer or foreman.

(b) Should they not be able to agree, the employer or his representatives and the representatives of the workmen's union shall endeavor to settle the matter in dispute.

(c) If the representatives referred to in subsection *b* are unable to arrange terms, the secretary of the board shall forthwith advise the committee of inquiry of the dispute.

(d) In the event of the committee of inquiry being unable to settle the dispute, it shall be referred to the board, and, failing a decision, then to the umpire or arbitrators, who shall be asked to give their decision within 7 days from the date of hearing.

XV. That when a dispute can not be settled between an employer and his workmen, or the representatives of both, the same rate of wages, or hours of labor, or conditions of employment that obtained prior to the dispute shall continue until a decision is given by the committee of inquiry, or board, or arbitrators, as the case may be. If there be no precedent as to wages, hours, or conditions, a provisional resolution on these questions may be given by the committee of inquiry, or board, or arbitrators, and must be observed, but without prejudice to either party to the dispute.

XVI. That all referred questions or disputes shall be submitted by members of the board, with liberty to call witnesses on either side; the work in dispute to be submitted at all such meetings for inspection: *Provided*, That where witnesses are to be called by either side of the board, or by either of the parties to the dispute, no evidence shall be taken, unless six days' notice has been given of the character of the evidence intended to be given, and of the locality from which the witnesses intended to be called will be brought.

XVII. That there must be no suspension of work either at the instigation of the employers or workmen, the main object of the board being to prevent this. If any suspension of work takes place, the board may refuse to inquire into the matter in dispute till work is resumed whilst the fact of its having been interrupted will be taken into account on considering the question. That in order that the complainant or complainants may not lose through waiting, any recommendation of the com-

mittee of inquiry or any decision of the board shall be made to date back to the time of the complaint being sent in.

XVIII. Should any case arise in which Rule XVII as to suspension of work should be contravened, a meeting of the board may be called immediately, and without previous notice, by the chairman to consider the case.

XIX. That any expenses incurred by the board are to be borne equally by the employers and workmen.

XX. That no alteration or addition be made to these rules except at a quarterly meeting, or at a special meeting convened for that purpose. Notice of any proposed alteration shall be given in writing one month previous to such meeting.

Adopted by the board at Leicester at a meeting held on the 15th day of December, 1886.

NORTH OF ENGLAND MANUFACTURED IRON AND STEEL.

The North of England iron trade began to be developed about 1860, and in the following decade its extension was rapid. Because of its hasty growth, the heterogeneous character of the men employed, and the widely scattered sections of the country from which the men were drawn many serious disputes and disorders occurred in its early history. In 1866 the works were closed for 4 months. From that time on for 2 years strikes were of frequent occurrence and "repeated reductions in wages became necessary and gave rise to feelings of resentment, which rendered it more than probable that any increase in the demand for iron would be the signal for peremptory demands on the part of the workmen, tending to a renewal of the confusion of previous years and to the destruction of the prosperity which all might otherwise hope to share."

Early in 1869 a board of conciliation and arbitration was formed, which has existed ever since, having been most successful in avoiding serious disputes and in settling those that did arise. It is formed by one employer and one workman from each works, the general business, however, being done by a standing committee of equal numbers. There is a chairman and a vice-chairman, who have no vote in their official capacity, and in case of a disagreement the matter is submitted to the referee, Sir David Dale. The committee meetings are held monthly, but may be more frequent if necessary, and the board has an open sitting every half year. Every case submitted to the standing committee is printed. The facts are briefly set before the meeting and a decision is thereby hastened. The standing committee has power to settle all matters referred to it, except a general rise or fall of wages or the selection of an arbitrator to fix the same.

The meetings of the representatives on each side of the table have dispelled the suspicion that formerly existed between the employer and his workmen. The employers have dealt openly with the men and have allowed the utmost freedom in expression of views. The result is that confidence exists instead of suspicion. The good feeling has led to the removal of evils which prevailed before the formation

of the board and which strikes had failed to remove. Since the formation of the board there have been only three stoppages for a few days—one in 1872, one in 1880, and one in 1882.

Prior to 1869 there was a period of considerable strife, some strikes lasting for many months. The men grew weary of striking, having lost much money, and the two sides got together to form a conciliation and arbitration board. At the inception of the board strong prejudice had to be dispelled. The men regarded the employers as the natural enemies of labor, but the board had not met a half dozen times before that was overcome, and it has gone on from that time to this without a break. The more the representatives of the men came in contact with the employers, and vice versa, the more they understood one another and the greater their respect for one another's opinions. During its existence the board has settled some 1,400 cases of dispute and 25 large, general arbitrations on wage questions affecting the whole of the trade. In 30 years there has been no instance in which the employers tried to force an issue by stopping work, and there have been only a very few cases in which the men have refused to carry out the award of the board. The places of these recalcitrant men were supplied, and both men and employers indemnified the firm against loss resulting from refusal to abide with the decision.

The standing committee have had to submit only 3 cases in 30 years to the referee, Sir David Dale, who is a large employer of labor in whom the men have always had the most implicit confidence. There has been no case nor the shadow of a case of any man having suffered for giving evidence before the board. Absolute freedom is given to every man to testify and to make out his case for his own side. The man in the trade safest from persecution is the representative of the workmen on the board.

Mr. Cox, the present secretary of the Iron and Steel Workers of Great Britain, regards the board as one of the blessings of the North of England and one of the greatest they have had in the trade. If it were not for the existence of this and the Midlands board there would be a tremendous loss in wages and increasing strife and turmoil. The masters would be badly off, for they would suffer by stoppages and consequent loss on contracts. The trade has experienced many changes; more, perhaps, than any other in existence, for it has gone through a complete revolution from iron to steel, and all the innumerable questions arising from these changes have been settled by the board. The board has the effect of holding in check arbitrary foremen, who sometimes take advantage of the men. At the same time it holds the men in check, for unless they have a good case their appearance before the board is ridiculed by their own colleagues.

Edward Trow, the former secretary, who died within the year, while he did not regard the sliding scale as perfect, considered it the

fairest method for the settlement of wages if an equitable basis can be agreed upon. While it does not jump the wages up so rapidly, it lowers them more gradually, and protects the men when they most need protection. It was his experience that the sliding scale gave the men better terms than any other arrangement made without it or obtained by arbitration. He had never known a case which could not be dealt with fairly by the arbitration board. Where both sides were acting with a desire to be fair and just to each other the result was always satisfactory. Until purely productive cooperation is secured conciliation and arbitration are the safeguards for the men.

The striking features of the rules of the board are the instructions given to the members. Any subscriber having a grievance must explain the matter to the operative representative of the works at which he is employed. Even before that he must do his best to have his grievance righted by seeing his foreman or the manager. The operative manager must question the complainant and discourage complaints that do not appear to be well founded. If there seems to be ground for the complaint, the complainant and the operative representative must lay the matter before the foreman of the works, one day of the week usually being designated for such hearings.

The complaint must be stated in a way that implies an expectation that it will be fairly considered and that what is right will be done. This will lead in most cases to a settlement without further proceedings. If, however, an agreement can not be reached, a statement of the points of difference is drawn up, signed by the two representatives, and sent to the secretaries of the board, with a request that the standing committee consider the matter. As soon as possible after the expiration of 7 days from the receipt of the notice the standing committee should meet; but a delay is not prejudicial, for the recommendation of the standing committee or a decision of the board dates back to the time when the complaint is made.

Above all it is impressed upon the members that there must be no strike or suspension of work. The object is to prevent anything of the sort; and when this does occur the board will refuse to inquire into the matter until work is resumed.

The following are the rules and by-laws of the board:

RULES AND BY-LAWS OF THE BOARD OF CONCILIATION AND ARBITRATION FOR THE MANUFACTURED IRON AND STEEL TRADE OF THE NORTH OF ENGLAND.

RULES.

1. The title of the board shall be The Board of Conciliation and Arbitration for the Manufactured Iron and Steel Trade of the North of England.
2. The object of the board shall be to arbitrate on wages or any other matters affecting the respective interests of the employers or operatives, and by conciliatory means to interpose its influence to prevent disputes and put an end to any that may arise.

3. The board shall consist of one employer and one operative representative from each works joining the board. Where two or more works belong to the same proprietors, each works may claim to be represented at the board, but in all such cases where iron and steel is worked, it is recommended that one representative shall represent iron and one steel; such arrangements shall, however, be optional on the part of the firm and workmen jointly.

4. The employers shall be entitled to send one duly accredited representative from each works to each meeting of the board.

5. The operatives of each works shall elect a representative by ballot at a meeting held for the purpose on such day or days as the standing committee hereafter mentioned may fix, in the month of December in each year, the name of such representative and of the works he represents being given to the secretaries on or before the 1st of January, next ensuing.

6. If any operative representative die or resign, or cease to be qualified by terminating his connection with the works he represents, a successor shall be chosen within one month, in the same manner as is provided in the case of annual elections.

7. The operative representatives so chosen shall continue in office for the calendar year immediately following their election, and shall be eligible for reelection.

7a. In case of the total stoppage of any works connected with the board, both employer and operative representatives shall, at the end of one month from the date of such stoppage, cease to be members of the board, and of any committee on which they may have been elected. Any vacancies so resulting from this or any other cause shall be filled up by the committee affected.

8. Each representative shall be deemed fully authorized to act for the works which has elected him, and the decision of a majority of the board, or in case of equality of votes, of its referee, shall be binding upon the employers and operatives of all works connected with the board.

9. The board shall meet for the transaction of business twice a year, in January and July, but by order of the standing committee the secretaries shall convene a meeting of the board at any time. The circular calling such meeting shall express in general terms the nature of the business for consideration.

10. At the meeting of the board to be held in January in each year it shall elect a referee, a president, and vice-president, two secretaries, two auditors, and two treasurers, who shall continue in office till the corresponding meeting of the following year, but shall be eligible for reelection. The president and vice-president shall be ex officio members of all committees, but shall have no power to vote.

11. At the same meeting of the board a standing committee shall be appointed as follows: The employers shall nominate 10 of their number, exclusive of the president (not more than 5 of whom shall be entitled to vote or take part in any discussion at any meeting of the committee), and the operatives 5 of their number, exclusive of the vice-president.

12. The standing committee shall meet for the transaction of business prior to the half-yearly meetings, and in addition as often as business requires. The time and place of meeting shall be arranged by the secretaries in default of any special direction.

13. The president shall preside over all meetings of the board, and of the standing committee, except in cases that require the referee. In the absence of the president a temporary chairman, without a casting vote, shall be elected by the meeting.

14. All questions requiring investigation shall be submitted to the standing committee or to the board, as the case may be, in writing, and shall be supplemented by such verbal evidence or explanation as they may think needful.

15. All questions shall, in the first instance, be referred to the standing committee, who shall investigate and have power to settle all matters so referred to it, except a general rise or fall of wages or the selection of an arbitrator to be empowered to fix

the same. Before any question be considered by the standing committee an agreement of submission shall be signed by the employer and operative delegate of the works affected and be given to the committee. In case of the standing committee failing to agree the question in dispute shall be submitted to the referee, who shall be requested to decide the same, but in all such cases witnesses from all the works affected may be summoned to attend and give evidence in support of their case.

16. No subject shall be brought forward at any meeting of the standing committee or of the board unless notice thereof be given to the secretaries 7 clear days before the meeting at which it is to be introduced.

17. All votes shall be taken at the board and standing committee by show of hands, unless any member calls for a ballot. If at any meeting of the board the employer representative or the operative representative of any works be absent, the other representative of such works shall not, under the circumstances, be entitled to vote.

18. When the question is a general rise or fall of wages, a board meeting shall be held, at which the referee may be invited to preside, and in case no agreement be arrived at a single arbitrator shall be appointed, and his decision at or after a special arbitration held for the purpose shall be final and binding on all parties. The referee may by special vote of a majority of the board be appointed arbitrator.

19. Any expense incurred by the board shall be borne equally by the employers and operatives, and it shall be the duty of the standing committee to establish the most convenient arrangements for collecting what may be needed to meet such expenses. The banking account of the board shall be kept in the name of the treasurers, and all accounts shall be paid by check signed by them.

20. The sum of 10s. [\$2.43] for each member of the board or standing committee shall be allowed for each meeting of the board or standing committee. This sum shall be divided equally between the employers and operatives, and shall be distributed by each side in proportion to the attendance of each member. In addition, each member shall be allowed traveling expenses at the rate of 3 half-pence [3 cents] per mile, and when an operative member is engaged on the night shift following the day on which a meeting is held he shall be allowed payment for a second shift.

21. The operative representative shall be paid for time lost in attending to grievances at the works to which he belongs at the rate of 10s. [\$2.43] for each shift actually and necessarily lost. Should he, however, lose more time than reasonably necessary in the opinion of the manager, the latter shall fill up the certificate only for such amount as he considers due before signing it. Whatever sum or sums in this or any other way be paid to operative representatives in excess of what is paid to employer representatives, railway fares alone excepted, one-half of such excess shall concurrently be credited to the employers collectively. An account of attendances, and fees paid to each representative shall be kept, and the secretaries shall call the attention of the standing committee to any case where the cost of adjusting disputes at any works exceeds, in their opinion, a proper amount in proportion to the number of operatives employed.

22. Should it be proved to the satisfaction of the standing committee that any member of the board has used his influence in endeavoring to prevent the decisions of the board or standing committee from being carried out, he shall forthwith cease to be a representative, and shall be liable to forfeit any fees which might otherwise be due to him from the board.

23. If the employers and operatives at any works not connected with the board should desire to join the same, such desire shall be notified to the secretaries, and by them to the standing committee, who shall have power to admit them to membership on being satisfied that these rules have been or are about to be complied with.

24. No alteration or addition shall be made to these rules, except at the meeting of the board to be held in January in each year, and unless notice in writing of the proposed alteration be given to the secretaries at least 1 calendar month before

next meeting. The notice convening the annual meeting shall state fully the nature of any alteration that may be proposed.

25. The standing committee shall have power to make from time to time such by-laws as they may consider necessary, provided the same are not inconsistent with or at variance with these rules.

BY-LAWS.

Rule 5. The secretaries shall, in the month of November in each year, issue a notice to each work connected with the board, requesting the election of representatives in the month of December, and shall supply the requisite forms.

Rule 11. The standing committee shall have power to fill up all vacancies that may arise during the half year.

Rule 14. An official form shall be supplied to each representative, on which complaints can be entered. Either secretary receiving a complaint shall be required to forward a copy of the same to the other secretary, and the complaint shall be considered as officially before the board from the date of such notice.

Rule 16. This rule to be interpreted to mean that no case in which the standing committee are called upon to deal finally with a complaint from any member of the board shall be taken up without 7 days' notice has been received; but this is not to apply to routine business, or to complaints the investigation of which may be considered necessary by the committee.

Rule 19. The sum of 1d. [2 cents] per head per fortnight shall be deducted from the wages of each operative earning 2s. 6d. [\$0.61] per day and upward. Each firm shall pay an amount corresponding to the total sum deducted from the workmen. The contributions shall be forwarded on official forms, to be supplied by the secretaries, to the bankers (the National Provincial Bank of England, Limited) within one week from the pay [day] when the money is deducted from the operatives.

Rule 20. If any member be compelled in the service of the board to attend meetings on two or more days consecutively, the sum of 3s. 6d. [\$0.85] each shall be allowed per night. This is not to apply to any members living in the place where the meeting is held. Members attending meetings on any day except Mondays or Saturdays, and being that week employed on the night turn, to be paid for two days for each sitting.

The board earnestly invites the attention of all who belong to it, either as subscribers or as members, to the following instructions:

If any subscriber to the board desire to have its assistance in redressing any grievance, he must explain the matter to the operative representative of the works at which he is employed. Before doing so he must, however, have done his best to get his grievance righted by seeing his foreman or the manager himself.

The operative representative must question the complainant about the matter, and discourage complaints which do not appear to be well founded. Before taking action, he must ascertain that the previous instruction has been complied with.

If there seem good grounds for complaint, the complainant and the operative representative must take a suitable opportunity of laying the matter before the foreman, or works' manager, or head of the concern (according to what may be the custom of the particular works). Except in case of emergency, these complaints shall be made only upon one day in each week, the said day and time being fixed by the manager of the works.

The complaint should be stated in a way that implies an expectation that it will be fairly and fully considered, and that what is right will be done. In most cases this will lead to a settlement without the matter having to go further.

If, however, an agreement can not be come to, a statement of the points in difference shall be drawn out, signed by the employer representative and the operative representative, and forwarded to the secretaries of the board, with a request that the

standing committee will consider the matter. An official form, on which complaints may be stated, can be obtained from the secretaries.

It will be the duty of the standing committee to meet for this purpose as soon after the expiration of seven days from receipt of the notice as can be arranged, but not later than the first Thursday in each month.

It is not, however, always possible to avoid some delay, and the complainant must not suppose that he will necessarily lose anything by having to wait, as any recommendation of the standing committee or any decision of the board may be made to date back to the time of the complaint being sent in.

Above all, the board would impress upon its subscribers that there must be no strike or suspension of work. The main object of the board is to prevent anything of this sort, and if any strike or suspension of work take place, the board will refuse to inquire into the matter in dispute till work is resumed, and the fact of its having been interrupted will be taken into account in considering the question.

It is recommended that any changes in modes of working requiring alterations in the hours of labor, or a revision of the scale of payments, should be made matters of notice, and as far as possible, of arrangement beforehand, so as to avoid needless subsequent disputes as to what ought to be paid.

IRON MINING.

Mr. J. Dennington is the secretary of the Cleveland Mine Owners' Association and also of the Ironmasters' Association. They have no active board, but a joint committee of 6 owners and 6 representatives of the men. This method has been in operation for 26 years. The joint committee deals with local questions affecting individual places, wages, and other questions; if a district wage question arises, that is a matter for the employers. Deputations of men come and confer with the owners, who generally appoint a mine man, and the men choose a practical miner for their representative, while if they fail to settle it these two choose a third, but as a fact they seldom fail to agree. There has been no strike in the district since 1874. When the market is advancing the men say they want advances in their wages; when it is receding the masters ask for a reduction, and their men seem willing to help them out.

They had a sliding scale from 1879 to 1889. Wages were then regulated three months after the ascertained price of iron during the preceding three months, and the men grew a little impatient in waiting for the scale to operate. Another objection to the sliding scale on the part of the men's officials is that the members of the men's association fell out of the ranks while the scale was in existence. Wages were settled by the price of iron in the market and were not fixed absolutely by the efforts of the men's representatives, making the representatives apparently less important, inasmuch as the men saw that the masters regarded the sliding scale as a very just measure of wages. With or without a scale there is no very great difference in the results, although without a scale the men may get advances a little more quickly; on the other hand, the mutual working of such a method would mean a reduction the sooner.

From 1873 to 1879 in this trade they had what is called higgling combined with arbitration. Then for 10 years, from 1879 to 1889, the sliding scale was used and now they have returned to their former method of higgling or negotiation, a change desired by the 6,000 or 7,000 men in the ironstone mines. The men have the idea that if parties sitting about the same table can not understand the matter, a third person is not likely to understand it any better; and they point to instances where they could have done better themselves than the arbitrator did for them.

One of the advantages of a joint committee, Mr. Dennington thinks, is that it brings the owners and the men together. Although they come about local matters to the committee they become acquainted with the masters, which leads to friendly intercourse in the larger questions. Much depends upon the individual representatives of the employers and the men. If they meet in a pleasant way, a conciliatory spirit rules; and if they differ, they do it without antagonism. They behave as gentlemen on both sides of the table and it is Mr. Dennington's testimony that there has been no bad feeling during the 26 years of his experience.

Of the 10 or 11 firms in the business in the district 8 are in the association. Those outside are governed by the prices set or paid by the association; "they wear the the uniform without paying for the cloth"—as Mr. Dennington remarked.

The rules of the Cleveland Mine Owners' and Miners' associations, which apply also to the blast furnace men, are as follows:

RULES FOR THE JOINT COMMITTEE.

The object of the committee shall be to arbitrate, appoint arbitrators, or otherwise settle all questions (except such as may be termed district questions or questions affecting the general trade) relating to wages, practices of working, or any other subject which may arise from time to time at any particular mine, and which shall be referred to the consideration of the committee by the parties concerned. The committee shall have full power to settle all disputes, and their decision shall be final and binding upon all parties in such manner as the committee shall direct.

The committee shall consist of 6 representatives chosen by the North Yorkshire Cleveland Miners' Association, and 6 representatives chosen by the Cleveland Mine Owners' Association.

At meetings of the committee it shall be deemed that there shall be no quorum unless at least three members of each association be present.

Each meeting shall nominate its own chairman, who shall have no casting vote. In case of equality of votes upon any question it shall be referred to two arbitrators, one to be chosen by the members of each association present at the meeting. These arbitrators to appoint an umpire in the usual way.

Each party to pay its own expenses—the expenses of the umpire to be borne equally by the two associations.

Should any alteration or addition to these rules be desired, notice of such change shall be given at the meeting previous to its discussion.

If any member of the committee is directly interested in any question under dis-

cussion, he shall abstain from voting, and a member of the opposite party shall also abstain from voting.

When any subject is to be considered by the committee, the secretary of the association by whom it is to be brought forward shall give notice thereof to the secretary of the other association at least a week before the meeting at which it is to be considered.

The rules of the Associated Iron and Steel Workers of Great Britain set out that one of the objects of the association is to "regulate the relations between workmen and employers, and to obtain by arbitration and conciliation, or by other means that are fair and legal, a fair remuneration to the members for their labor." The principle of settling all differences is enjoined upon members of the association in the following rules:

In the event of any misunderstanding or dispute arising with the members at any works and their employers, if connected with the wages board or the board of conciliation and arbitration, they shall, in the first instance, refer the particulars of their grievance to the secretary of the board for the district in which such dispute occurs, who shall investigate the claims of the applicants according to the spirit of the arbitration rules, and endeavor to settle the matters referred to him. In the event of the operative secretary being unable to settle any question calculated to produce irritation betwixt employer and employed, he shall call upon the employers' secretary to hold a meeting, at an early day, for the due consideration and settlement of such matters in dispute; and, if necessary, the full board shall be summoned to settle the same.

If a dispute takes place at any works not connected with the wages board or with the conciliation board, the lodge committee, and, if necessary, the district committee, shall hold a meeting to consider, and, if possible, to settle the same. If desirable, at request of district committee, the general secretary shall visit the works, or shall appoint a deputy to do so in his absence, in accordance with the instruction given by the general council.

Where works are not connected with any board, the members of this association shall use their influence with employers and others to join the present boards, or to form new boards to suit the local circumstances of such works and workmen; and in case any dispute should arise where a board of conciliation and arbitration has not been formed, the workmen who are members of this association shall, before any step be taken calculated to produce a loss of employment, first make an offer in writing to the employer or employers, to settle the question in dispute by an appeal to conciliation and arbitration.

What is good for the settlement of disputes between their employers and themselves is regarded with equal favor for the settlement of their own differences—between members and officers of the association and between any branch and the council. Provision is made, as a last resort, for the election of a referee, whose decision shall be final.

In the ironstone trade in the Cleveland district almost every known system of settling labor differences has been tried—the joint committee, the sliding scale, conciliation, and arbitration. The miners' association was formed in January, 1872, and has existed ever since. As early as April, 1873, a joint committee of masters and men was formed

for the settlement of local disputes. The committee has existed continuously from that time to this. There are six representatives on either side, and any case they can not settle is put into the hands of referees, one or two on each side. If these fail to settle the question, they appoint an umpire, and his decision is final.

Mr. Joseph Toyn, the president of the miners' association, is on record as saying that the committee has, without doubt, avoided hundreds of stoppages and strikes. It has worked fairly well and has made some good settlements for both sides and kept the best relationship. This is favored for minor and local disputes, but not for general questions.

The sliding scale was used and abandoned by the men after a trial of ten years. They gave it up because the basis was not high enough, and because it did not move rapidly enough in a rising market. There were but quarterly ascertainties of prices. Then, too, there is some difficulty unless a satisfactory basis of wages is agreed upon; and in a trade subject to many and great fluctuations the basis would have to be changed every few years.

Since 1877 the men in this trade have always refused arbitration, for their experience was that they got the worst of the decision. Not that the arbitrators were biased against them, but their difficulty was in producing evidence to offset the facts and figures offered by the owners.

Of all methods Mr. Toyn prefers conciliation. With a spirit of reasonableness on each side a better decision is likely to be obtained by a conference of representatives of owners and men, who understand all the points, than by a reference to an outside umpire. It is better than going to an umpire, because nineteen times out of twenty the question is taken away from practical men on the two sides and given into the hands of one who knows nothing about it. Conciliation is the best way of settling disputes, for the employers and men will go far in this direction before bringing about a strike, and further than they are likely to go afterwards.

The Cleveland Ironmasters' Association and the blast furnacemen employed in the associated works regulate wages by a sliding scale. The agreement governing them was to continue three years from December 31, 1897, and three months' notice will have to be given September 30, 1900, to terminate it at the end of the three-year period, December 31, 1900. The first audit covered the business done during October, November, and December, 1897. The result was announced as early as possible in January and regulated wages for January, February, and March, 1898. Every three months audits are held and the time of ascertaining the price must not be later than the 7th of the following month. Should any dispute arise, provision is made for referring it to a committee composed of not more than 6 representa-

tives from each side. If they can not agree, then an umpire is to be chosen.

The men have been organized since 1879, and since then there has been no general strike. The committee usually agree, and the services of the umpire are very seldom needed. There are 3,000 blast furnacemen in the district.

Luke Fenwick, the men's secretary, regards their method as an excellent way of settling disputes. They do not always get what they think they are entitled to, but it is a fair way. When the decision is made it is strictly adhered to and carried out. Very friendly relations exist between masters and men, which it would be difficult to improve upon.

Mr. J. Dennington is the masters' secretary and his remarks concerning the iron-mining trade are equally applicable to the blast furnacemen.

The National Federation of Blast Furnacemen is on record in favor of joint committees as the best mode of settling wages and trade disputes. Their rules provide that no district or part of a district in the federation shall give notice of a strike, or of an intended alteration in the hours or conditions of labor, until its case has been laid before the members and a vote by ballot been taken. In all questions a majority of the members shall decide, except in case of a strike, where a two-thirds vote is required. The rules governing the joint committees are as follows:

1. Joint committees of members of this federation and their employers shall consist of an equal number of representatives from each side.

2. At joint committee meetings, if less than three representatives from either side attend, there shall not be any business transacted. Less than three from each side shall not be deemed to form a quorum.

3. The committee shall settle, if possible, all questions relating to wages, practices of working, or any other subject which may arise from time to time at any particular work, and which shall be referred to the consideration of the committee by the parties concerned. The committee shall have full power to settle all disputes, and their decision shall be considered final and binding upon all parties concerned.

4. The chairman shall have no casting vote. In case of an equal number of votes being cast on each side, upon any question, it shall be referred to two arbitrators, one to be chosen by each side. These arbitrators to appoint an umpire, if necessary. Each party to pay its own expenses. If an umpire is called upon, each side shall pay half of his expenses.

5. When any question is to be considered by the committee the party raising such question must give at least seven clear days' notice to the opposite party before the date of the meeting at which it is to be considered.

THE BOILER MAKERS.

The Boiler Makers and Iron and Steel Shipbuilders' Society has been in existence more than 60 years, and is one of the wealthiest trade unions in England. For more than 20 years there has been no general

strike in the trade. This has been accounted for by the conciliatory features in vogue and the great powers given to the executive council of the union. The latter is permitted to say when the funds of the society are to be used in a dispute and to make terms of settlement with the employers, without taking a vote of the members on the question.

The men have found that they can get more by quietly and peaceably arguing the question than by causing unpleasantness and a stoppage of work, which would mean loss. Their experience has also shown that increase or decrease of wages should not be extreme—neither too high in good times nor too low in bad times. As a result it has become law in the trade that wages move only 5 per cent up or down at any one time. By the rules changes do not occur at shorter intervals than 6 months. These customs steady trade and enable employers to calculate almost to a certainty upon taking contracts.

If an advance is desired or a reduction asked a month's notice is given and a conference arranged to discuss the proposed changes. A master always presides at the conference, and each side is represented by a deputation. Views are interchanged, and if an agreement is not reached at the first meeting the dispute is almost invariably settled at the second.

The secretary of the society, Mr. R. Knight, is on record as favoring conciliation as the best means of settling difficulties between employers and workmen, because it leaves no bitterness behind. The men have always been met by the employers in the most gentlemanly way and with a desire to come together, and they have succeeded. Arbitration has not been tried, for they have always been able to settle their own affairs, as they thought, better than an outsider. As the best thing for workmen and employers his decided preference was for conciliation.

There is no actual board of conciliation, but an agreement between the Tyne, Wear, Tees, and Hartlepool shipbuilders and the executive council of the Boiler Makers and Iron and Steel Shipbuilders' Society, which was signed on July 5, 1894, to continue five years. This agreement provides for the settlement of differences by conference and by peaceful means.

It is as follows:

AGREEMENT BETWEEN THE TYNE, WEAR, TEES, AND HARTLEPOOL SHIPBUILDERS AND THE EXECUTIVE COUNCIL OF THE BOILER MAKERS AND IRON AND STEEL SHIPBUILDERS' SOCIETY.

1. Alterations in wages.—No general alteration to be made until after 6 calendar months have elapsed from the date of last alteration, and no single alteration to be more than 5 per cent. Four weeks' notice in writing to be given of any proposed alteration. Previous to such notice being given by either side a request for a meeting between the associated employers and the boiler makers' society shall be given

by the party intending to give notice; this meeting shall be held within 14 days after the receipt of the request. Failing agreement during the month's notice, the notice may be extended to any time not exceeding another month if acceptable to both parties; but whatever the settlement may be, the advance or reduction, if any, shall commence from the expiration of the first month's notice.

Should a settlement not thus be effected, the question can be dealt with as may be considered best.

2. *Sectional or individual disputes.*—In the event of any such disputes, they shall, in the first instance, be referred to the society's officials and the employer or his representatives. If any dispute takes place respecting the price of work, the job shall be proceeded with as on piece, and whatever the price may be when settled, the same shall be paid from the commencement of the job; and in the meantime if a pay day comes before a settlement, the man or men can draw whatever amount it has been the custom of the firm to pay under the circumstances, or the disputed job can be done at day rates if so agreed upon between the firm's officials and the district delegate.

Failing a settlement of the dispute by ordinary means, the terms of settlement shall be adjusted by a committee representing employers and the boiler makers and iron shipbuilders' society within 14 days.

3. *Appliances, etc.*—Notwithstanding any of the above clauses, the shipbuilders are to be entitled to a revision of rates on account of labor-saving appliances, whether now existing and not already sufficiently allowed for or hereafter to be introduced; for improved arrangements in yards; for rates to be paid in vessels of new types where work is easier, and for other special cases. The terms of these revisions to be adjusted by a committee representing employers and the boiler makers and iron shipbuilders' society. The men shall in like manner be entitled to bring before the said committee any jobs the rates of which may require revision due to new conditions of working, structural alterations in vessels, or any other cause.

4. *Work pending settlement of disputes.*—Work shall in all cases be proceeded with without interruption pending the settlement of any dispute, whether as to prices or otherwise.

5. *Standing committee.*—A standing committee of three on each side (exclusive of the delegate on each side) shall be appointed for each river to consider local disputes. In the event of any dispute involving more than one river, a joint committee, the members of which shall be selected from the local committees involved, shall be convened.

6. *Duration of scheme.*—The scheme to be tried for a period of 5 years, and to be afterwards terminable by 6 months' notice on either side.

NEWCASTLE-ON-TYNE, July 5, 1894.

SCOTTISH MANUFACTURED-IRON TRADE.

In September, 1896, at the suggestion of the operatives, negotiations were begun between the employers and workmen engaged in the manufactured-iron trade of Scotland, with a view to the establishment of a board of conciliation and arbitration, on the same lines with that of the North of England. A conference proved the existence of a feeling on the part of employers and employed that the meeting together of representatives of the masters and operatives, by whom grievances could be discussed and disputes amicably adjusted, would conduce to mutual confidence and harmonious cooperation, and would

be for the best interests of the trade. As a result a board was formed in March, 1897, including 20 works, owned by 18 firms, only one manufacturer in the west of Scotland not being a member of the board.

Previous to that time the wages of the Scottish workmen were regulated by prices paid in the North of England. The Scottish iron trade had been more depressed than the English trade, and when prices began to rise their advance was more rapid than in the English trade. The men noticed this, and suggested the organization of the board.

Sir James Bell, ex lord provost of Glasgow, was unanimously chosen arbitrator, but during the 2 years of the board's existence his services have not been needed.

The main purpose of the conciliation and arbitration board is to settle the wage question. It was difficult to get a basis satisfactory to both sides, and audits for 2 months at a time were held to decide the rate. The result of these audits fixed the rate for a corresponding period of 2 months.

At each annual meeting 12 employers, not more than 6 of whom shall be entitled to take part in any discussion, are named, along with 6 workmen, as members of a standing committee. To this committee every question, except a general rise or fall of wages, is submitted for settlement. If they fail to agree it is then sent to the board, and if no agreement can be reached, then the umpire is called in.

Since the organization the standing committee and the board have settled all differences; and at the second annual meeting, held in January, 1899, the president declared that the more information they could disseminate concerning the board the greater would be the confidence and the more smoothly would the board work. The vice-president, a workman, said those on his side of the house were willing, so far as it was possible, to act in conjunction with the employers for harmony, peace, and prosperity.

The conciliation and arbitration board in the manufactured-steel trade for the West of Scotland was organized in 1892. During the past 5 years there has been no strikes to speak of, and where differences have arisen they have been amicably settled.

Mr. John Cronin is the general secretary of the men. He said they have never had any case of repudiation of a decision since the establishment of the board. There have been cases where men in the works wished to withdraw from the board because of an adverse decision, but they have been held in check.

Employers may claim compensation for losses if the men withdraw without reporting the trouble to their secretary. The penalty varies in time and material. Sometimes it is only a nominal claim and

sometimes actual. Though disappointment follows successive reductions, the men must abide by the decision. The leading men on the board are the leading men in the union's affairs. The men are certainly favorable to the boards, he said.

Mr. Bishop, secretary of the masters' association, regards the board as a good education, for many differences are due wholly to misunderstandings on the part of the men. It gives time for pause; when in hot blood, it gives room for reflection. The men frequently think capital is against labor; but the board shows that their interests are identical, and will often avoid if not altogether dispense with a strike. In their trade they have experienced its workings only with a rising market. The one trouble is that the majority of the men do not give the members of the board and those of the standing committee a free hand. The constituents must be consulted before the final agreement can be arrived at, and it is very difficult at times to control the men. An employer is president of the board and a workman vice-president.

The rules for the iron and steel trade are identical. Those for the former are as follows:

RULES OF THE SCOTTISH MANUFACTURED-IRON TRADE CONCILIATION AND ARBITRATION BOARD, ADOPTED JANUARY 23, 1899.

1. The title of the board shall be The Scottish Manufactured-Iron Trade Conciliation and Arbitration Board.

2. The objects of the board shall be to discuss and if necessary to arbitrate on wages or any other matters affecting the respective interests of the employers or operatives, and by conciliatory means to interpose its influence to avert stoppages, prevent disputes, and put an end to any that may arise.

3. The board shall consist of one employer representative and one operative representative from each works joining the board. Where two or more works belong to the same proprietors, each may claim to be represented at the board.

4. The employers shall be entitled to send one duly accredited representative from each works to each meeting of the board. The operatives of each works shall elect their representative to the board, who must be a subscriber to the board.

5. The secretaries shall, in the month of November in each year, issue a notice to each works connected with the board, requesting the election of a representative in the succeeding month of December. The employers will have the notices posted in their works, and will, if desired by the acting representative, appoint a person to assist at the election if more than one candidate be nominated. The notice will call a meeting of the operatives for such day or days in the month of December, and at such place or places as the standing committee hereinafter mentioned may appoint, when candidates shall be nominated. If only one person be nominated, he shall be considered to be duly elected. If more than one person be nominated, an election by ballot shall be held on an early convenient day, to be fixed by the acting representative and the operatives' secretary, the candidate receiving the largest number of votes to be declared duly elected. The acting representative shall on or before the 1st day of January next ensuing send to the secretaries the name of the representative so chosen and of the works he represents. The secretaries will supply all printed forms necessary for the election.

6. The operative representative so chosen shall assume office at the next ensuing annual meeting of the board, and shall retain office until the succeeding annual

meeting. Both old and new representatives shall be present at each annual meeting, but only the old representatives shall vote on the adoption of the annual report and accounts. This being done, they shall at once demit office, and be immediately succeeded by the new representatives. Representatives shall be eligible for reelection.

7. If any operative representative die, or resign, or cease to be qualified, or terminate his connection with the works he represents, a successor shall be chosen within 1 month, in the same manner as is provided in the case of annual elections, and shall remain in office over the same period as would the representative in whose room he was elected.

8. In case of the total stoppage of any works connected with the board, except from temporary causes, both employer and operative representatives shall, at the end of 1 month from the date of such stoppage, cease to be members of the board and of any committee on which they may have been elected. Any vacancies resulting from this or any other cause shall be filled up by the committee affected.

9. Each representative shall be deemed fully authorized to act for the works which has elected him, and the decision of a majority of the board shall be binding upon the employers and operatives of all works connected with the board.

10. The annual meeting of the board attended by new and old members shall be held in January of each year, when the accounts for the previous year shall be submitted. By order of the standing committee, the secretaries shall convene a meeting of the board at any time, giving at least 7 days' notice. The circular calling such meeting shall state in general terms the nature of the business for consideration.

11. At the annual meeting the new members shall elect an arbiter, a president, a vice-president, two treasurers, two secretaries, and two auditors, who shall continue in office till the corresponding meeting of the following year, but shall be eligible for reelection. All except the arbiter and secretaries shall be elected from the members of the board. The secretaries shall be appointed—one by the employers' representatives and one by the operatives' representatives—and both shall be paid by the board. Neither of the secretaries shall be an employer or employee of the trade. Any casual vacancies in the offices of treasurers or auditors which may occur during the year may be filled up by the standing committee; and any casual vacancy in the office of employers' or operatives' secretary may be filled up by the representatives on the standing committee of the employers or of the operatives, as the case may be.

12. The president and vice-president shall be ex officio members of all committees, but without a casting vote. It shall be the duty of the president to preside over all meetings of the board and of the standing committee, except in cases that require the arbiter. In the absence of the president and vice-president a temporary chairman shall be elected by the meeting, but in no case, whoever presides, shall the chairman have a casting vote. The secretaries shall be appointed as paid officials of the board, without power to vote; they may, however, take part in all discussions.

13. At the annual meeting of the board a standing committee shall be appointed as follows: The employers shall nominate 12 of their number (not more than 1 from each firm), exclusive of the president (not more than 6 of whom shall be entitled to vote or take part in any discussion at any meeting of the committee), and the operatives 6 of their number, exclusive of the vice-president; 6 to form a quorum.

14. The standing committee shall meet as often as business requires. The time and place of meeting shall be arranged by the secretaries, in default of any special direction by the board or the president and vice-president.

15. All questions, including any not settled at the works, shall, in the first instance, be referred to the standing committee, who shall investigate and have power to settle all matters so referred to them (except a general rise or fall of wages, which shall be referred to a special meeting of the board). In any case where the standing committee fails to agree, or its decision is not accepted by either party, the question in

dispute shall be submitted to the board, and if not decided by the board it may then be submitted to the arbiter, whose decision in all cases submitted to him shall be final and binding on all parties.

16. All votes at the board and standing committee shall be taken by show of hands. If at any meeting of the board either the employer representative or the operative representative of any works be absent, the other representative of such works shall not be entitled to vote.

17. Questions requiring investigation by the standing committee or the board shall be submitted in writing through the secretaries. Either secretary receiving a complaint shall forward a copy of the same to the other secretary, and the matter referred to shall be considered as officially before the committee from that date. Before any question be considered, an agreement of submission shall be signed by the employer and operative representatives of the works affected, and given to the secretaries, who shall bring the same before the committee. Forms for these purposes shall be supplied by the secretaries.

18. The committee or the board or the secretaries, in their discretion, may summon from the works affected witnesses to give evidence in any case submitted to them, such witnesses to be paid by the board such allowances and expenses as the committee may direct.

19. No case referred to the standing committee, nor any subject of dispute, shall be considered at any meeting unless notice thereof has been given to the secretaries four clear lawful days before such meeting, but this is not to apply to routine business nor to matters the investigation of which may be considered necessary by the standing committee.

20. When the question is a general rise or fall of wages, a board meeting shall be held, and in case no agreement can be arrived at it shall be referred to the arbiter, and his decision shall be final and binding on all parties.

21. No suspension of work shall take place pending the consideration or settlement of any question in dispute.

22. The sum of 1 penny [2 cents] per head per fortnight (which sum may be altered if found necessary) shall be deducted from the wages of all puddlers (forehand, level-hand, and underhand), bushelers, scrap furnacemen and assistants, shinglers and assistants, forge rollers and assistants, puddled bar bankmen, cutters down, heaters and assistants, rollers and all assistants, finished bar bankmen, pig-iron wheelers, and tap or cinder wheelers, earning over 3 shillings [\$0.73] per shift. Each firm shall pay an amount corresponding to the total sum deducted from the workmen. The contributions, along with the official forms to be supplied by the secretaries, shall be forwarded to the bankers (the National Bank of Scotland, Limited, Glasgow) within one week from the day when the money is deducted from the operatives. The banking account of the board shall be kept in the name of the treasurers, and all accounts shall be paid by check signed by them.

23. All expenses incurred by the board shall be borne equally by the employers and operatives.

24. The sum of 10s. [\$2.43] shall be paid to each member attending a meeting of the board or of the standing or other committee. In addition each member shall be allowed traveling expenses at the rate of 3 halfpence [3 cents] per mile, and when an operative member is engaged on the night shift following the day on which a meeting is held, he shall be allowed payment for a second shift.

25. The operative representative shall be paid at the rate of 10s. [\$2.43] per shift for such time as he actually and necessarily loses, or is occupied, in attending to grievances at works in which he is employed. A certificate for the amount so due shall be signed by the employer, or his deputy, and sent by the operative representative to the secretaries, who shall pay such charges, if they are found in order. In case of any sum or sums being in this or any other way paid to operative representatives in

excess of what is paid to employer representatives, railway fares alone excepted, one-half of such excess shall concurrently be credited to the employers collectively. An account shall be kept of attendances, and fees paid to each representative, and the secretaries shall call the attention of the standing committee to any case where the cost of adjusting disputes at any works exceeds, in their opinion, a proper amount in proportion to the number of operatives employed.

26. Should it be proved to the satisfaction of the standing committee that any member of the board has used his influence in endeavoring to prevent the decisions of the board or standing committee from being carried out, he shall forthwith cease to be a representative, and shall be liable to forfeit any fees which might otherwise be due to him from the board.

27. No alteration or addition shall be made to these rules, except at the meeting of the board held in January in each year, and unless notice in writing of the proposed alteration be given to the secretaries at least one calendar month before such meeting. The notice convening the annual meeting shall state fully any alteration that may be proposed.

28. The standing committee shall have power to make, from time to time, such by-laws as they may consider necessary, provided the same are not inconsistent with or at variance with these rules.

29. If the employers and operatives at any works not connected with the board desire to join the same, such desire shall be notified to the secretaries, and by them to the standing committee, who shall have power to admit them to membership on being satisfied that these rules have been or will be complied with.

INSTRUCTIONS.

The board earnestly invites the attention of all who belong to it to the following instructions:

1. If any subscriber to the board desires to have its assistance in redressing any grievance, he must explain the matter to the operatives' representative of the works at which he is employed. Before doing so he must, however, have done his best to get his grievance righted by seeing his foreman, or the manager, himself.

2. The operatives' representative must question the complainant about the matter, and discourage complaints which do not appear to be well founded. Before taking action, he must ascertain that the previous instruction has been complied with.

3. If there seems to be good ground for complaint, the complainant and the operatives' representative must take a suitable opportunity of laying the matter before the foreman or works manager, or head of the concern (according to what may be the custom of the particular works). Except in case of emergency, these complaints shall be made only upon one day in each week, the said day and time being fixed by the manager of the works.

4. The complaint should be stated in a way that implies an expectation that it will be fairly and fully considered, and that what is right will be done. In most cases this will lead to a settlement without the matter having to go further.

5. If, however, an agreement can not be come to, a statement of the points of difference shall be drawn up and signed by the employers' representative and the operatives' representative and forwarded to the secretaries of the board with a request that the standing committee will consider the matter. An official form on which complaints may be stated can be obtained from the secretaries.

6. It will be the duty of the standing committee to meet for this purpose as soon after the expiration of four days from receipt of the notice as can be arranged.

7. It is not, however, always possible to avoid some delay, and the complainant must not suppose that he will necessarily lose anything by having to wait, as any recommendation of the standing committee or any decision of the board may be made to date back to the time of the complaint being sent in.

8. Above all, the board would impress upon its subscribers that there must be no strike or suspension of work. The main object of the board is to prevent anything of this sort, and if any strike or suspension of work takes place the board will refuse to inquire into the matter in dispute till work is resumed; and the fact of it having been interrupted will be taken into account in considering the question.

9. It is recommended that any changes in the modes of working requiring alterations in the hours of labor or a revision of the scale of payments shall be made matter of notice, so far as possible, and of mutual arrangement beforehand, so as to avoid needless subsequent disputes as to what ought to be paid.

NOTTINGHAM LACE TRADE.

Three sets of rules have been adopted by the board of conciliation and reference in the lace trade since 1868, and the changes have been comparatively few and slight, only those being made where experience has shown some weakness.

The rules of 1868 set forth the object of the board to be "to arbitrate on any question that may be referred to it from time to time by the joint consent of employer and workman, and by conciliatory means to interpose its influence to put an end to any dispute that may arise." The later rules state the purpose is to confer on questions, and they provide that no question will be entertained unless the employees are at work. The size of the board was increased from 8 to 13 on each side.

The rules of 1868 also provided for a committee of inquiry consisting of 4 members, 2 from each side, whose duty it was to consider all business and use its influence in the settlement of all disputes. The committee was not permitted to make an award, and in case of failure to amicably adjust the business referred to it it was to be remitted to the board.

By the rules of 1895 the committee of inquiry was continued and provision was made for the submission of such disputes as did not come within the province of the committee, or on which the committee could not agree to a recommendation, to the section of the trade to which they refer. The section failing to agree, the question was then to be submitted to the full board, which was not allowed to discuss the question for a longer time than one month.

The latest rules have omitted the committee of inquiry, and the question is first submitted to the section of the board which represents the branch of trade implicated, and in case of its failure to suggest a settlement, then to the full board.

The earliest rules provided for the submission of a dispute to a referee in case of a tie vote on the board, but the rules of 1895 provided that in case of a tie the dispute should be referred within 14 days to two referees, one to be chosen by either side, who before entering on their duties should choose an assessor. In case the referees did not agree within 7 days the assessor was to have another 7 days

in which to render his decision. He was to be present at all meetings of the referees to obtain evidence on which to base his decision, and the decision of either the referees or the assessor was to be final and binding upon both parties.

All these provisions have been swept away by the most recent rules, which provide that in case the board fails to agree each side is permitted to choose an independent chairman to sit with the board of conciliation. If no decision can be reached, the question is then to be submitted to the board of trade.

Penalties for not complying with the decisions of the board were added in the rules of 1895 and retained in those of 1898.

The principle of conciliation and arbitration was recognized in this trade before 1868, when boards were organized upon the arising of any dispute, but they were only temporary in character. Fragmentary societies began to be formed as early as 1846. Between that date and 1868 the idea began to grow that it would be better to settle disputes by arbitration. It became stronger in 1874, when the branches, such as the fancy branch, the curtain branch, and the plain net branch, amalgamated in September of that year, with 3,357 members. Of those not employing union men, there are only about 12 shops, holding 100 machines and employing the same number of hands. They fix their own prices and the union and employers' association never attempt to coerce the manufacturers or their men.

Mr. W. A. Appleton, secretary of the lace-makers' union, says it has been a hard fight to uphold the conciliation and arbitration boards. He has had two severe struggles with the men during the last three years, the hot-headed men wishing to abolish the boards, but suggesting no substitute. They had no idea what they were fighting for—only to destroy something. They had several votes and meetings, and it was only after a six months' struggle that the rules were revised so as to secure a finality of decision—the bringing in of the board of trade.

Years ago prices were enormous, both prices and wages being abnormal. It was not unusual for the manufacturers to make 100 per cent, and the men £8 (\$38.93) and £10 (\$48.67) a week. When prices fell wages fell with them. Twice they have had serious disputes that the board could not control; and the board was finally broken up largely because it was impossible to get workmen to act on the board and endure the obloquy sure to come upon them. When a 20 per cent reduction is in the air no one wishes to be the man to agree to it.

In 1889 occurred the last big dispute over wages, lasting 8 weeks and ending with a 20 per cent reduction. The men accepted it entirely, with exception of one shop containing 17 men, who refused to be bound by the decision. This was the only case where the board's decision was not loyally supported, and these men were boycotted by their fellows and obliged to walk the streets for two years before they

succeeded in obtaining work. During the summer Mr. Appleton was engaged in revising the list of prices in the Levers' (fancy) branch. The result, he felt, would not be popular; but as anomalies had crept in, a revision became necessary.

There are frequent fluctuations in the trade, which is now largely affected by foreign competition, especially French and German. The board meets on an average once every week in the mayor's parlor. General trade conditions are not discussed, but may be quoted in support of arguments. Wages are not now determined by the profit. Custom originally fixed wages "in the good old days," but they have been scaled down gradually to fit present conditions.

Relations of the most friendly character have been engendered between the two classes by these meetings of the board, which have created a feeling of equality as nothing else could. There can not be a trade, Mr. Appleton thought, where there is a better feeling, and this despite the fact that the men are necessarily idle for 8 months, the season running only from November to March. If they can manage disputes, any trade can, for they have infinite varieties of lace and infinite chances for disagreement. They have almost reached the position where they consider the question in the abstract.

If a man is discharged or stops work the dispute is never considered until he is reinstated or resumes work. It is not sufficient that he may return; he must actually be at work before the board acts. If it is a recalcitrant member of the manufacturers' association who withdraws, that leaves the workmen free to strike the shop.

Mr. H. A. Goodyer, secretary of the employers' association, in speaking from the employers' standpoint, said the boards work amicably. They have brought quiet and security to the employers. If a dispute arises they know work will continue, no customers will be disappointed, and great losses will not be suffered.

The latest rules are:

RULES OF THE BOARD OF CONCILIATION AND REFERENCE FOR THE LACE TRADE.

1. That a board of trade be formed, to be styled the Board of Conciliation and Reference for the Lace Trade.

2. That the object of the said board shall be to confer on any questions that may be referred to it and to interpose its influence to secure the settlement of any dispute that may arise. No question to be entertained unless the employees are at work.

3. The board shall consist of 13 manufacturers and 13 operatives; 5 of each to form a quorum; the manufacturers to elect 6 levers, 4 curtain, and 3 plain net representatives; the operatives to elect 6 levers, 4 curtain, and 3 plain net representatives. The manufacturers to be chosen by the Lace Manufacturers' Association; and the operatives by the Amalgamated Society of Operative Lace Makers. The whole of the delegates to serve for one year, and to be eligible for reelection. The new council to be elected in the month of January in each year.

4. The board shall, at the first meeting in each year, elect a president, vice-president, a treasurer, and two secretaries; who shall continue in office one year; and shall be eligible for reelection.

5. That the board shall meet for the transaction of business once a quarter, viz: the last Monday in January, April, July, and October; but on a requisition to the President, signed by 3 members of the board specifying the nature of the business to be transacted, he shall, within 14 days, convene a meeting of its members. The circular calling such meeting shall specify the nature of the business for consideration.

6. Either party to any dispute shall forward a written statement of the case to the secretaries, who shall, within 7 days of receiving such statement, call a meeting to consider the question.

7. All cases in dispute shall, in the first instance, be submitted to that section of the board which represents the branch of trade implicated. Should the section fail to agree upon any recommendation for the settlement of the question referred to it, such question shall then be submitted to the full board, whose final vote shall be taken by show of hands or ballot. No question in dispute shall be discussed by the section and full board for a longer period than one month before being voted upon. Should the numbers then be equal, the question shall be dealt with under Rule 9.

8. The decision of the board shall be final and binding on the parties to any dispute submitted to it. No settlement can however be considered binding until ratified by the full board.

9. Should the vote of the full board, on any question (the vote having been taken by show of hands or by ballot), result in an even number of votes being cast for or against, each association shall have the privilege of consulting its own constituents, and within 14 days of such vote, each association shall elect an independent chairman, to sit with the board of conciliation; and should the board then fail to agree, the question in dispute shall, within 14 days, be referred to the board of trade.

10. No alteration which would result in more than a $7\frac{1}{2}$ per cent advance or reduction on the rack price shall at any time be entertained.

11. When at any meeting of the board, the number of employers and workmen is unequal, all shall have the right of fully entering into the discussion of any matters brought before them, but only an equal number of each shall vote. The withdrawal of the members of whichever body may be in excess to be by lot.

12. That any expenses incurred by this board be borne equally by the operatives and employers, and the accounts to be produced and passed at each quarterly meeting.

13. That no alteration or addition be made to the rules except at a quarterly meeting or a special meeting convened for the purpose. Any member of the board intending to propose an alteration or addition shall furnish the exact terms thereof, in writing, to the secretaries, 28 days before such meeting, and the secretaries shall give 21 days' notice of the same to each member of the board.

14. *Section A.*—Any member of the Lace Manufacturers' Association who may be reported to the board as not complying with the decisions of the board of conciliation and reference, in respect to the price per rack, etc., and who should have been ultimately found guilty of such malpractices, after a full and searching inquiry into the same, shall pay the whole of the costs incurred by such inquiry, in addition to the difference in wages, from the time such complaint was given notice of. Upon the refusal of such employer to conform to this rule, the Lace Manufacturers' Association shall refuse any pecuniary assistance to such defaulting member, and the operatives' association shall have the full power of withdrawing workmen from the service of such employer. Also that the Lace Manufacturers' Association shall pay an equal proportion of the expenses incurred so long as the employer in question remains a member of the Lace Manufacturers' Association.

Section B.—Any member of the Amalgamated Society of Operative Lace Makers who may be reported to the board as not complying with the decisions of the board

of conciliation and reference in respect of the price per rack, etc., and who shall have been ultimately found guilty of such malpractices, after a full and searching inquiry into the same, shall pay the whole of the costs incurred by such inquiry, and should he fail to do so the Amalgamated Society of Operative Lace Makers shall pay such costs, and exclude him from all benefits which he otherwise might be entitled to as a member of this society, and in case the said society shall give any pecuniary or other assistance to such members, the said society shall pay a fine of £10 [\$48.67] to the funds of the Nottingham General Hospital.

(Signed)

HENRY A. GOODYER,
P. KEATING,

Secretaries.

THE COTTON TRADE.

The Northern Counties Amalgamated Association of Weavers has 80,000 members. Mr. W. H. Wilkinson, the secretary, said that the board of conciliation which was established in 1878 after the big strike of that year works fairly well. In 1896 the rules were amended and now give better satisfaction. All around the men have held their own in the arbitration. All wage questions have to be settled by this body. In 1878 there had been a 10 per cent reduction, and in December, 1883, when the employers asked for a further reduction of 5 per cent, the representatives on the board could not agree and a strike ensued. It ended February 14, 1884, the employers gaining their point. Trade having revived in July of the same year the 5 per cent was restored by the board. In June, 1892, a new basis came into operation, previous to which time there had been the Blackburn, the Burnley, the Preston, and the Ashton lists. Now they are all brought into one uniform list under which they have worked since 1892.

Twenty-five years ago plain cloth was made in the trade; now there is a large variety and many technical points arise which must be decided. Nine out of ten disputes have arisen, not by reason of the standard of wages, but because of the introduction of difficult cloths and the per cent to be put upon them.

The reason for the formation of the board was the desire to prevent strikes. Neither side has been willing to appoint an arbitrator. In Mr. Wilkinson's opinion, the board has done an immense amount of good and has settled hundreds of disputes. A tangle can be straightened out much better while the men are working than after they have gone out on a strike. Though no meetings are held for the discussion of the general trade situation, the board has brought about a better feeling between the employers and the men. The exchange of views leads to better understanding of the questions in dispute and causes all to look at them from a new standpoint.

If the members of the joint committee fail to agree, then each side is permitted to take such action as may seem best, though the men prefer not to have the decision made by a third party.

The rules for the government of the joint committee in the weaving and spinning trades are the same, and are as follows:

The object for which this joint committee of employers and operatives is established is to consider in their preliminary stages all trade disputes occurring in the weaving department and coming within the knowledge of the officials of the operatives' amalgamation within the district of north and northeast Lancashire, and thereby endeavoring to preserve good feeling between employers and operatives. For the purpose of carrying out this object it is agreed as follows:

1. The joint committee shall consist of 12 members, composed of 6 representatives of the employers and 6 representatives of the weavers of north and northeast Lancashire, selected by the employers and weavers' associations, respectively.

2. Either party may cause a meeting to be convened by giving a notice in writing, stating the object for which such meeting is desired. Not less than 7 days' notice of each meeting shall be given, and it shall be held within 10 days of such notice, without fail. The employers' notice may be addressed to Mr. W. H. Wilkinson, and the operatives' notice to Mr. John Taylor, respectively. Meetings shall not be held oftener than once a month, except adjourned meetings.

3. The meetings shall be held at the Mitre Hotel, Manchester, on Tuesdays, or at such other time and place as the joint committee may determine.

4. Meetings may be adjourned from time to time at the discretion of the joint committee.

5. The business of the joint committee being preliminary and consultative only, it is hereby expressly declared that it is not authorized to come to any final conclusion upon any of the matters brought under its notice. The employers' section and the operatives' section shall respectively report to their constituents as to the general results of the various discussions.

6. Subject to the before-mentioned conditions, the proceedings of the joint committee shall be regarded as strictly private and confidential. Every question discussed, every statement made, and every opinion expressed shall be treated by each member as strictly private and confidential, and shall not be communicated to any outside person or to the press, except by direction or permission of the joint committee.

7. That alteration of any prices in the final settlement of any dispute shall date from the time the complaint was made in writing by the local secretary of the district.

8. The name of any member of the joint committee or the particular part taken in any of the discussions shall not be quoted at any public meeting.

9. That all disputes occurring in the weaving department within the district of north and northeast Lancashire should be brought first before a local meeting of employers and operatives, and, failing settlement, should be brought before this joint committee prior to any notices for a strike being given by either employers or operatives.

The above rules and regulations were unanimously adopted at a meeting of the joint committee held at the Mitre Hotel, Manchester, on Friday, the 3d day of July, 1896.

Signed, on behalf of the employers.

JOHN TAYLOR.

Signed, on behalf of the operatives.

WM. H. WILKINSON.

The spinners, card-room workers, warpers, winders, and reelers work under what is termed the Brooklands agreement, before the adoption of which no board existed. Mr. James Johnson, secretary of the

Blackburn Operative Spinners' Association, said a dispute in Oldham and South Lancashire against a 5 per cent reduction caused a strike in Blackburn for the reason that the Blackburn men's wages at that time rose and fell with those of Oldham. This strike began November 5, 1892, and ended March 28, 1893, lasting 20 weeks. To settle it representatives of the men and employers got together first, the meeting of the committees following. They still maintain a committee called the Brooklands agreement committee, which has settled all disputes since the agreement was signed, in 1893. Mr. Johnson believes it has been a great saving for both employers and men, for they settle disputes locally where the federation obtains. If the local officials can not decide the point, then the federation committee acts, and if they fail to agree, then each side is free to do as it sees fit. Now they do not wrangle with individual employers, but the dispute must be decided by the committee. This arrangement has had a civilizing effect, doing away with the personal feeling that formerly obtained in the trade between the employer and the men.

A joint committee is used for the settlement of disputes between employers and men in both the weaving and spinning trades. There are six representatives on each side, one being taken from each town, so that an unbiased tribunal is secured from which personal feeling is eliminated. There has never been a single case, except a demand for a general advance in wages, which has not been settled without a strike. If the master does not abide by the decision he is left to the mercy of the men and the other masters offer him no support whatever. If the operators strike without bringing their grievance to the notice of their committee, nothing will be done until they return to work. The men are fined a penny (2 cents) a loom per hour for striking without bringing the dispute to the notice of the trade committee. In the Northern Counties Amalgamated Society of Weavers there are 262,000 looms and 3,500,000 spindles. The committee has saved much money for the manufacturers. No demand can be made for an advance until after 12 months from the date of the last one, thereby giving security to the trade and satisfaction to the men. If trade happens to decrease during this time the masters will lose and vice versa.

Mr. John Taylor, secretary for the manufacturers, spoke enthusiastically of the workings of the joint committee and heartily approved of conciliatory methods in the settlement of disputes. Their experience with it had been satisfactory in every way.

There is at present some talk of having wages in the spinning trade settled by a showing of profits by the manufacturers, but this has not yet gone into effect. Heretofore the stronger party has won. In 1892-93 a strike of 20 weeks occurred in the trade in Oldham district, the manufacturers' demand being for 5 per cent. Two and a-half per cent was granted by the settlement, and the Brooklands agreement

was adopted to govern future disputes in the trade between the parties.

J. Thompson, of the Blackburn spinners' board, said they had very few disputes in his district, and there would be no strikes at any one mill nor any in Lancashire, unless it be a general strike of the whole body. It is hard to get the societies to consent to enter on strikes, the process being slow and requiring 2 months for a decision.

The spinners work under the Brooklands agreement, and to give some idea of its working in recent years it is only necessary to quote from the annual report to the Amalgamated Association of Operative Cotton Spinners of Lancashire and adjoining counties for the year ending December 31, 1898. The writer says:

The most striking feature in the accounts, however, is the great decrease in dispute pay. During 1897 it was £9,819 1s. 3d. [\$47,784.47] and, taking the whole of the 16 years up to that date, and excluding the big fights of 1885 and 1892-93, the average will not be far short of £6,000 [\$29,199] per annum. But last year it was only £869 13s. 6d. [\$4,232.27]. This reduction in cost is almost wholly due to the working of the Brooklands agreement, and to the fact that nonassociated employers are getting fewer, as it has been with them that almost all our strikes and lockouts have arisen in recent years.

The Brooklands agreement is as follows:

BROOKLANDS AGREEMENT.

1. The representatives of the employers and representatives of the employed in the pending dispute hereby admit that disputes and differences between them are inimical to the interests of both parties, and that it is expedient and desirable that some means should be adopted for the future whereby such disputes and differences may be expeditiously and amicably settled, and strikes and lockouts avoided.

2. That the pending dispute be settled by a reduction of 7d. in the £ in the present wages of the operative cotton spinners, card and blowing room hands, reelers, winders, and others; such reduction to take effect forthwith, and the mills to resume work on Monday next, the 27th instant.

3. That when the employers and employed next agree upon an increase in the standard wages of the operative cotton spinners, card-room hands, and others who participated in the last advance of wages, such increase shall not exceed the reduction now agreed upon, unless in the meantime there shall have been a further reduction of such wages, in which case, should an advance be agreed to, the employed shall be entitled to an advance equal in amount to the last preceding reduction, plus the reduction of 7d. in the £ now agreed upon, provided always that no application for an increase or reduction of such wages as now agreed upon shall be made for a period of 6 calendar months from the date hereof.

4. That, subject to the last preceding clause, and with the view of preventing the cotton-spinning trade from being in an unsettled state too frequently from causes such as the present dispute, to the disadvantage of all parties concerned, no advance or reduction of such wages as aforesaid shall in future be sought for by the employers or the employed until after the expiration of at least 1 year from the date of the previous advance or reduction as the case may be, nor shall any such advance or reduction when agreed upon be more or less than 5 per cent upon the then current standard wages being paid. Notwithstanding anything hereinbefore contained in

this clause, whenever a general demand for an advance or decrease of wages shall be made the wages of the male card and blowing room operatives may be increased to such an extent as may be mutually agreed upon.

5. That the secretary of the local employers' association and the secretary of the local trade union shall give to the other of them, as the case may be, 1 calendar month's notice in writing of any and every general demand for a reduction or advance of the wages then being paid.

6. That in future no local employers' association, nor the federated association of employers on the one hand, nor any trade union or federation of trade unions on the other hand, shall countenance, encourage, or support any lockout or strike which may arise from or be caused by any question, difference, or dispute, contention, grievance, or complaint, with respect to work, wages, or any other matter, unless and until the same has been submitted in writing by the secretary of the local employers' association to the secretary of the local trade union, or by the secretary of the local trade union to the secretary of the local employers' association, as the case may be; nor unless and until such secretaries or a committee consisting of 3 representatives of the local trade union with their secretary, and 3 representatives of the local employers' association with their secretary, shall have failed, after full inquiry, to settle and arrange such question, difference, or dispute, contention, complaint, or grievance within the space of 7 days from the receipt of the communication in writing aforesaid; nor unless and until, failing such last-mentioned settlement and arrangement, if either of the said secretaries of the local trade union and the local employers' association shall so deem advisable, a committee consisting of 4 representatives of the federated association of employers, with their secretary, and 4 representatives of the local amalgamated association of the operatives' trade union, with their secretary, shall have failed to settle or arrange, as aforesaid, within the further space of 7 days from the time when such matter was referred to them; provided always that the secretaries or the committee hereinbefore-mentioned, as the case may be, shall have power to extend or enlarge the said period of 7 days whenever they may deem it expedient or desirable to do so. Should either the local employers' association or the local operatives' association fail to call such a meeting within 7 days (unless by consent of the other side), then the party which has asked for the meeting shall have the right to at once carry the question before the joint committee of the employers' federation and the operatives' amalgamation without further reference to the local association, and should either the employers' federation or the operatives' amalgamation fail to deal with the matter in dispute within a further 7 days, then either side shall be at liberty to take such action as they may think fit.

7. Should a firm make any change which, when completed, involves an alteration in the work or rate of wages of the operatives which is considered not satisfactory by them, then the firm shall at once place the matter in the hands of their association, who shall immediately take action as per clause 6, failing which the operatives involved shall have the right to tender notices to cease work without further notice to the employers' association. When a settlement is arrived at it shall date from the time the change was made.

8. Every local employers' association or the federated association of employers on the one hand, and every local trade union or the federation of trade unions on the other hand, shall, with as little delay as possible, furnish to the other of them, in writing, full and precise particulars with reference to any and every question, difference or dispute, contention or grievance that may arise with a view to the same being settled and arranged at the earliest possible date in the matter hereinbefore mentioned.

9. There shall not be placed upon any joint committee of the federated association and the amalgamated association more than one member of the local employers' association and one member of the local trade union, in addition to the respective

secretaries of those bodies. The rest of the said joint committee shall consist of persons who have not locally adjudicated upon the matter in question. It is understood that in case of unavoidable absence of secretary a substitute may be present to act in same capacity as secretary.

10. It is agreed that in respect to the opening of new markets abroad, the alteration of restrictive foreign tariffs, and other similar matters which may benefit or injure the cotton trade, the same shall be dealt with by a committee of three or more from each federation, all the associations undertaking to bring the whole of their influence to bear in furthering the general interests of the cotton industry in this country.

11. The above committee shall meet whenever the secretary of either federation shall be of opinion that questions affecting the general interests of the cotton trades should be discussed.

12. The representatives of the employers and the representatives of the employed in the pending dispute do mutually undertake that they will use their best endeavors to see that the engagements hereinbefore respectively entered into by them are faithfully carried out in every respect.

THE POTTERIES TRADE.

Mr. Owen, of Burslem, for many years a representative of the men in the potteries, gave the following statement of the working of the board in his trade:

The board for the potteries was established some time in 1868. There had been previous arrangement for small arbitration of minor disputes, but in 1868 a permanent board, constructed on the principle of equal representation on each side, with a permanent umpire, was established. A number of distinguished men, such as E. J. Davis, Mr. Kettle, Mr. Mundella, Judge Hughes, and Lord Brassy, acted as umpires from time to time. The board was extremely useful and successful in settling a large number of disputes relating to individual men and branches in the trade and had, during its existence, seven or eight great arbitrations, in which the interests of all operatives were involved. Sometimes proceedings lasted a week. The appellant opened and the other side replied. The principle of arbitration, in the sense of the court being a judicial chamber to decide between the disputants, had the completest test ever furnished in any trade in any country. At first the arbitration applied its test as to what labor was worth, to the skill of the particular workmen or branch affected, and when the first great arbitration took place in 1872, a period of great prosperity, the advance in wages then secured by the men was given, not on the principle of a proportionate advance in working price to the large increase on selling prices which had taken place, but because of the worth of the labor assessed, upon the worth of the individual skill. The idea prevailed in the trade that 30 shillings (\$7.30) stood for medium skill, greater skill earning more. The selling prices in 1872 had become very high, and if the workmen's advance had been proportionate, a greater advance than 8½ per cent should have been granted.

In after years, when trade declined, the masters sought a reduction

of 10 per cent, and based their appeal on the great decline of selling prices. They failed to convert the umpire, E. J. Davis, to their demand, but succeeded several years later, in 1879, before Lord Hatherton. The workmen, in 1880, sought to recover the penny on the shilling taken off by Lord Hatherton, but Lord Brassy refused to revise that judgment and the board was broken up, a strike taking place the following year.

The board was reconstructed in 1884 or 1885, in the meantime a court of conciliation working for the settlement of small disputes. Mr. Owen attributes the failure of the board, during the interval, to the workmen not making themselves strong through trade unionism to resist the encroachments upon their wages.

The next great arbitration took place in 1891. The rules of the board had been revised for the purpose, it was thought, of giving the workmen the right to challenge investigation into the figures of trade submitted by the masters in their evidence. The workmen did so challenge the figures in the arbitration in 1891, but the fiasco resulted in the masters appointing the accountant and selecting the firms whose figures were to be investigated, the names of which were kept secret. The arbitration failed to get back the penny, and the disappointment was so intense on the part of the workmen that the board was broken up finally. Various umpires agreed with the men's representatives that under such a system it was next to impossible to have an equal chance, because the men were hampered by lack of knowledge of the facts submitted by the masters.

The men secured one advance in wages in 1872, which they lost again in 1879, and every effort to recover it was unsuccessful. The men had no voice in the trade, and there was no clear basis for governing wages in relation to selling prices. The masters were successful, Mr. Owen thought, because the men have not had grit enough, but have had too much selfishness as distinguished from the selfishness of the operatives as a class acting together. The producers work by piece, and some would rather seek their own benefit than the advantage of the whole class. They have had nothing like the percentage of sturdy trade unionism in this trade that exists in other trades. "Union with arbitration is better than arbitration without union" is Mr. Owen's motto, but the combination of a strong union, coupled with an equitable system of arbitration, would be best. Arbitration as carried on in this trade was generally condemned by the men.

In November and December, 1898, a section of the employers asked the men to combine with them to raise simultaneously selling prices and wages. This was in the marl section of the trade, which adopted the scheme advocated by Mr. E. J. Smith, of Birmingham, described in the latter part of this report.

With no board in existence in the trade in case of a dispute between the employers and the employed, the two sides endeavor to have each appoint an independent person as arbitrator, and the two so chosen to appoint an umpire. The question in dispute is then referred to this tribunal, which hears the employees or their representative and the manufacturers or their secretary.

THE DYEING TRADE. *

A large industry in England is that of dyeing and its associated trades. One of the most important points is Huddersfield, and a running account of the experiences in that section of England would be typical of other sections of the country in the same trade.

In July, 1891, the workmen's association of West Riding, in Yorkshire, which was in excellent working order, gave a sharp and short notice to one of the leading firms in Huddersfield that unless certain demands were granted forthwith the men would go out on a strike. The firm having no association to back it and being busy at the time, conceded the demands, and then convened a meeting of master dyers to consider the advisability of combining.

On the 21st of July, 1891, the Huddersfield and District Master Dyers' Association was formed, the first annual report containing the following note:

The workmen's associations being thoroughly united, have steadily enforced their demands for uniform hours of labor, and in each case, except one, where a lockout and riot took place, have obtained their demands without difficulty, and in the exception referred to the men won in the end.

The men wished to see the masters organized, so that the associations could help each other and could form a board of conciliation. On the 28th day of October, 1892, the men's secretary and four delegates attended a masters' meeting, when it was resolved to form a board of conciliation.

In the following January some of the leading firms of Leeds, having heard of the successful results attending the work of the Huddersfield association, convened a meeting and resolved to form an association of Leeds and Bradford dyers with the view of ultimately amalgamating with the Huddersfield association. This amalgamation was effected later on, and from that time the general desire for boards of conciliation has increased.

On the 11th of March, 1893, the principal firms interested in the slubbing and yarn-dyeing trade in Bradford, Halifax, and surrounding districts formed a special section and joined the West Riding Dyers' and Finishers' Association. In July of that year the slubbing and yarn-dyers (masters) decided to abolish the system of paying time and

a half after 6 p. m., the men's society threatening to withdraw if that notice was not recalled. The masters thereupon issued a notice that all men leaving their work without the authority of the masters or foremen would be no longer considered servants of the firm with which they were employed. The dispute ended in a strike in some firms, and a general lockout occurred among the slubbing and yarn dyers throughout the district. In the end an agreement was arrived at, one of its recommendations being that a board of conciliation be formed, so that strikes and "disturbances may be avoided in the future." The board was formed, and held its first meeting in February, 1894.

To show the good feeling created by this board the following notice was posted a month later by the West Riding Dyers' and Finishers' Association:

It has been brought to our notice that some of the dyers, finishers, millers, and scourers of West Riding have urged as a reason for not joining a trades union that if they did and the employers knew this they would be dismissed for so doing. We hereby give notice that any man in our employment is at liberty to join any trades union he may wish to join, without any fear of such action on our part.

The board of conciliation between the masters' association and the amalgamated society of dyers was registered by the board of trade October 29, 1896. Except slight misunderstandings of a very temporary nature, the association has worked most beneficially for all parties concerned. The rules are about to be reconsidered with the view of enlarging their scope and probably establishing a fund from which fines can be deducted.

The original association, the Huddersfield and district board, created the very best of feeling between masters and men in the districts. This has been so marked that their principal meetings have been annual dinners, and during the evenings there have been most friendly and open discussions of the difficulties besetting masters and employees, with exchange of ideas for common benefit. The feeling was so strong that when the cloth pressers' union wished to join the board in March, 1897, the men's section at first were unwilling to admit any other body, for fear friction might be introduced and the cordial feelings existing between employers and employed perhaps destroyed. They were finally admitted, and an enlarged board was formed, consisting of 10 employers and 10 employees. This was registered by the board of trade May 3, 1897.

The cotton-warp master dyers formed a section which joined the West Riding Dyers' and Finishers' Association, and the board of conciliation was entered for them September, 1897, by the board of trade.

In May, 1899, the secretary of the employers' association issued a circular to the trade and to the men's association in Lancashire and Yorkshire with the view of creating a powerful and united board of

conciliation for the two counties, including every branch of the dyers' and finishers' trades. The matter was receiving consideration, but no decision had been reached, at the time of this investigation.

The masters' secretary said he had not the slightest hesitation in saying that the three boards with which he is connected have created the utmost good will and have saved considerable capital to the employers, wages to the employees, and have prevented much misery among families who suffer during strikes and lockouts. After an investigation of the compulsory acts of New Zealand, and many years of observation, he believes it would be for the best interests of all parties to pass a compulsory conciliation act. The British act of 1896 is purely permissive, and although he has used it successfully he feels that any want of tact on one side or the other would shiver the board.

He believes in combinations, both of employers and employees, and denounces masters and men who refuse to join their associations or unions, yet willingly enjoy the benefits accruing from them.

Before the establishment of the boards difficulties were constantly arising, and there was growing discontent, which, while more particularly affecting individual firms, did culminate in strikes and lockouts. Since the establishment of the boards these have been obviated. In one or two cases, through misunderstanding, when the men forgot the rule and went out without bringing the dispute to the attention of their committee, the matter was soon put right and the men returned to work. The contact in the meetings has helped to a better understanding and a better knowledge all around, with favorable results to both masters and men. Speaking for the masters, the secretary said they view the boards with every satisfaction.

The rules of the West Riding Dyers and Finishers' Association are like those of the warp dyers, and are a good example of the boards in it and kindred trades. They are as follows:

RULES OF THE BOARD OF CONCILIATION BETWEEN WEST RIDING DYERS AND FINISHERS' ASSOCIATION AND THE AMALGAMATED SOCIETY OF DYERS.

I. The composition of the board shall be as follows:

(a) Nine members representing employers, to be elected by the West Riding Dyers and Finishers' Association.

(b) Nine members representing employees, to be elected by the Amalgamated Society of Dyers.

The said 18 members shall constitute the board of conciliation.

II. The board shall annually at their first meeting appoint from their own body a chairman and a vice-chairman, both of whom shall be entitled to vote, but neither to have a casting vote. The chairman shall be selected from the employers of labor on the board, and the vice-chairman from amongst the employed. The chairman (or in his absence the vice-chairman) shall preside, either on the occasion of a conference or at a transaction of ordinary business. In the absence of both the chairman and vice-chairman, the members present shall appoint a chairman to preside at that meeting.

III. The board shall elect two secretaries after these rules are adopted, but their appointment shall be subject to the pleasure of the board.

IV. Whenever a vacancy has arisen, from any cause, in the board, such vacancy shall be filled up, within two months of its occurrence, by the body which appointed the member whose seat has become vacant. Intimation of such appointment shall be at once sent to the secretaries.

V. Members shall be elected annually. The retiring members shall be eligible for reelection.

VI. As soon as it shall come to the knowledge of either of the secretaries that any question has arisen which can not be settled by the persons interested, it shall be their duty to immediately summon a meeting of the board. Such meetings to be held at night unless otherwise arranged.

VII. Should the disputants prefer it, the board shall assist them in selecting arbitrators to whom the questions at issue shall be submitted for decision. In the event of the disputants agreeing to accept the intervention of the board for any of the purposes mentioned in this rule, the following rules shall take effect:

(1) No decision of the board shall be binding upon either of the parties to the dispute, excepting at the express desire of both disputants signified in writing before the final decision is given.

(2) No case shall be finally decided excepting in the presence of a quorum of 8 members of the board.

(3) At the request of either disputant, and with the consent of both, the board shall have power to call in the assistance of two or more experts, half of whom shall be selected by each party to the dispute.

(4) Each party shall, prior to the hearing of the case by the board, forward to the secretaries a written statement showing how the disagreement has come about and what are their respective claims and complaints.

(5) In addition to this documentary statement, witnesses may be called by either party to give evidence in support of such statements as have been adduced.

(6) The chairman, as defined in Rule II, shall act as presiding officer only, empowered to decide questions of order and to expound and elucidate, but not to advocate.

(7) A verbatim report of the proceedings may be taken at the discretion of the board.

(8) When a decision is agreed upon by the board, or by arbitrators selected by them, the same may be made public with such comments as shall be approved of by the board. Should the proceedings before the board result in an equality of votes, so that no definite decision can be given, then the chairman shall make an announcement to that effect.

VIII. In the event of any question being put to the vote at any meeting of the board at which the number of representatives of employers and employed is unequal, any member present shall have the right to claim that the voting power of each order shall be equal, irrespective of the numbers present. In such case the chairman shall call upon the order whose numbers predominate to exclude from the voting such a number of their order for the time being as shall suffice to produce an equality of voting between the two orders, the chairman counting himself as one of the order to which he belongs.

IX. The expenses of the board shall be levied upon each section in equal proportions.

X. The board shall publish an annual report, but no account of the proceedings during the hearing of any particular dispute shall be inserted therein without the consent of both disputants.

XI. The board may from time to time construct a code of by-laws for its own government.

XII. These rules shall be open to amendment as required from time to time on agreement between master dyers and the workmen dyers at a joint meeting of both bodies, summoned by the secretaries, notice of such meeting being given at least one month previous to the meeting.

THE LONDON LABOR CONCILIATION AND ARBITRATION BOARD.

An association organized to prevent strikes and lockouts, especially in London, is the London Labor Conciliation and Arbitration Board. Its organization was a direct outcome of the strike of the dock laborers in London in 1889, which interfered so greatly with the business of the 3,500 members of the chamber of commerce and paralyzed and diverted trade to such an extent that the board was urged to take some action to end a calamity so wide reaching in its consequences.

A suggestion from the chamber to submit their differences to some sort of arbitration met with refusal from each side. But the effects of the strike were so disastrous and so disturbing to business in London that a committee was appointed by the council of the chamber of commerce to investigate the whole question of labor conciliation and arbitration, with instructions to report, if advisable, some scheme for the prevention of disputes and for settling them if they should arise in the metropolis. Previous to this dock-laborer strike the chamber of commerce had proceeded on the theory of noninterference with anyone's business affairs, but so many firms, members of the chamber, were interfered with and hampered by that strike that they felt something must be done to prevent its recurrence in the future; at least an honest effort must be made to adjust any differences in trade matters before such injurious results could be tolerated.

This board of conciliation and arbitration was organized by 12 representatives chosen by the chamber of commerce and 1 representative from each of the 12 groups into which the trades of London were divided. They are the building trades, cabinet and furnishing trades, carmen, coach, tram and buss employees, clerks, shop assistants and warehousemen, clothing trades, gas, coal, and chemical trades, leather trades, metal trades, printing and paper trades, provision and food trades, railway workers, and shopping trades. Each trade is united to form a separate conciliation committee. This committee, consisting of experts in a particular trade, is composed of equal numbers of employers and employed, chosen by their respective orders. To such a body any dispute in its own trade is submitted, provided the two sides agree to such submission. In this way any grievance can be amicably discussed before it reaches an acute stage. If the trade committee fails to settle the difference, it will be taken to the central or London conciliation board, composed of 24 members, 12 being chosen from each side. Finally, if this board is unable to reach an

agreement it then offers facilities for arbitration; and in the event of this being refused, the two sides retain all their rights to become belligerents.

The London county council was given the privilege of naming a delegate and the workmen were allowed to choose a labor member of Parliament. These men constitute the board and conduct the business on a footing of equality, and with equal voting power. From these men are chosen a certain number, each side being equally represented to sit as conciliators or arbitrators, as the case may be; but no one of them is interested in the trade in which the dispute has arisen. The experience of the board has been that in nearly every case an agreement has been reached, notwithstanding the equality of representation, and the awards have invariably been respected and carried out.

The leading purposes of the board have been thus stated:

To promote amicable methods of settling labor disputes and the prevention of strikes and lockouts generally, and also especially in the following methods: They shall in the first instance invite both parties to the dispute to a friendly conference with each other. In the event of the disputants not being able to arrive at a settlement between themselves, they shall be invited to lay their respective cases before the board, or should the disputants prefer it, the board would assist them in selecting arbitrators. The utmost efforts of the board shall in the meantime, and in all cases, be exerted to prevent if possible the occurrence or continuance of a strike or lockout. The London conciliation board shall not constitute itself a body of arbitrators except at the express desire of both parties to a dispute, to be signified in writing, but shall in preference, should other methods of conciliation fail, offer to assist the disputants in the selection of arbitrators chosen either from its own body or otherwise. Any dispute coming before the board shall, in the first instance, be referred to a conciliation committee of the particular trade to which the disputants belong. To collect information as to the wages paid and other conditions of labor prevailing in other places where trades or industries similar to those of London are carried on, and especially as regards localities either in the United Kingdom or abroad, where there is competition with the trade of London. Such information shall be especially placed at the disposal of any disputants who may seek the assistance of the London conciliation board.

At first this board decided not to interfere in any dispute unless the application came from the parties to the board; but it was found from experience that it was sometimes considered a sign of weakness if one or the other contestant made an application for the good offices of the board. The latter has therefore adopted a rule that whenever a dispute is heard of as pending or about to begin, a communication is sent to each side inviting them to meet at the chamber of commerce. The first effort is to get the parties together, and, if possible, to help them in settling their differences. That is the method preferred, for they believe that it is much better for employers and employed to settle

their differences between themselves without outside interference. Such a settlement is in the nature of a bargain after mature deliberation and careful discussion. If, after coming together, the parties fail to agree, then the board offers to appoint arbitrators and investigate the trouble in a regular arbitration.

In some instances experts in the trade sit as arbitrators; in others persons not acquainted with the details of the trade. In nearly every arbitration a unanimous decision has been reached, notwithstanding the equal numbers. If the occasion should come when there would be an equal division on a question, an umpire would be chosen. The effort of the board has been to form separate conciliation committees for each trade in London; but there has been an unwillingness on the part of the trades to do that. They prefer to go to the whole board for the settlement of their difficulties.

This board met for the first time on the 12th of December, 1890. Its chairman has been Mr. S. B. Boulton, a large employer of labor, who believes implicitly in the principles governing the board. As a rule, it has restricted its action to the district of London, but it would go beyond the limits of the district if invited to do so. Sir John Lubbock was for several years the representative on the board of the London county council and the labor member of Parliament is Charles Fenwick.

The amount of work done by this society is somewhat limited. The matters settled or arbitrated have not, as a rule, affected any considerable number of work people; and yet the workings of the board have been successful and satisfactory to those accepting its suggestion of mediation. The fact is that not since the board was organized have the services of an umpire been needed, nor has there been a single case of repudiation of the decision. The report of the Royal Commission of Labor stated that for district boards that of London was the best type. In the great engineering dispute of 1897 the board had no opportunity for active intervention, for the reason that the difficulty in a few days assumed national proportions, although it had its origin in the London district. On an average, seven or eight cases have been considered in one way or the other by this board during each year since its formation.

The rules governing the board are as follows:

RULES AND BY-LAWS OF THE LONDON CONCILIATION BOARD.

RULES.

I. That a permanent body be constituted, to be called the London Conciliation Board, which shall be affiliated to the London chamber of commerce, and that its composition shall be as follows, viz:

(a) Twelve members representing capital or employers, to be elected by the council of the chamber.

(b) Twelve members representing labor, to be elected by the employed.

(c) To these shall be added representatives from the separate trade conciliation committees as hereinafter referred to.

(d) Four members, viz, the lord mayor of London, or some member of the corporation to be nominated by him, the chairman of the London county council, or some member of the council to be nominated by him, and two representatives of London labor organizations to be selected by the labor representatives on the board.

The formation of the board shall date from its first meeting, on December 12, 1890. Its original members shall hold office for not exceeding three years, as may have been or may be from time to time determined by the electing bodies, respectively.

II. The duties of the London Conciliation Board shall be as follows:

(a) To promote amicable methods of settling labor disputes and the prevention of strikes and lockouts generally, and also especially in the following methods:

1. They shall, in the first instance, invite both parties to the dispute to a friendly conference with each other, offering the rooms of the chamber of commerce as a convenient place of meeting. Members of the board can be present at this conference, or otherwise, at the pleasure of the disputants.

2. In the event of the disputants not being able to arrive at a settlement between themselves, they shall be invited to lay their respective cases before the board, with a view to receiving their advice, mediation, or assistance. Or should the disputants prefer it, the board would assist them in selecting arbitrators, to whom the questions at issue might be submitted for decision.

3. The utmost efforts of the board shall in the meantime and in all cases be exerted to prevent if possible the occurrence or continuance of a strike or lockout, until after all attempts at conciliation shall have been exhausted.

The London Conciliation Board shall not constitute itself a body of arbitrators, except at the express desire of both parties to a dispute, to be signified in writing, but shall in preference, should other methods of conciliation fail, offer to assist the disputants in the selection of arbitrators chosen either from its own body or otherwise. Any dispute coming before the board shall, in the first instance, be referred to a conciliation committee of the particular trade to which the disputants belong, should such a committee have been formed and affiliated to the chamber.

(b) To collect information as to the wages paid and other conditions of labor prevailing in other places where trades or industries similar to those of London are carried on, and especially as regards localities either in the United Kingdom or abroad where there is competition with the trade of London. Such information shall be especially placed at the disposal of any disputants who may seek the assistance of the London Conciliation Board.

III. The separate trade conciliation committees shall be composed of equal numbers of employers and of employed.

Each trade shall elect its own representatives, employers and employed voting separately for the election of their respective representatives. The number of members and the general rules of procedure shall be determined by each particular trade, subject to the approval of the London Conciliation Board.

The trade conciliation committees shall be affiliated to the London chamber of commerce, and shall be represented upon the London Conciliation Board. Any trade conciliation committee constituted as above, representing a body or trade in the metropolitan districts of more than 1,000 individuals, shall send 2 representatives to sit on the London Conciliation Board, one being an employer and the other an operative workman, each to be separately elected by employers and employed, respectively. In the case of trade conciliation committees representing bodies or trades in the metropolitan districts smaller in number than 1,000 individuals, two or more such committees may unite together to elect joint representatives to the London Conciliation Board.

It shall be the duty of the trade conciliation committees to discuss matters of contention in their respective trades; to endeavor amicably to arrange the same, and in general to promote the interests of their trade by discussion and mutual agreement. In the event of their not being able to arrange any particular dispute, they will refer the same to the London Conciliation Board, and in the meantime use their most strenuous endeavors to prevent any strike or lockout until after the London Conciliation Board shall have exhausted all reasonable means of settlement.

They may from time to time consider and report to the London Conciliation Board upon any matter affecting the interests of their particular trade upon which it may be thought desirable to employ the action or influence of the London chamber of commerce as a body.

IV. The London chamber of commerce places its rooms at the disposition of the London Conciliation Board and of the trade conciliation committees for holding their meetings. Any alterations in the rules and regulations of these bodies which may be from time to time proposed shall be submitted for approval to the council of the chamber.

V. The above regulations shall be subject to by-laws, to be specially framed for the purpose, and which shall be open to amendment as required from time to time, on agreement between the council of the chamber of commerce and the London Conciliation Board.

BY-LAWS.

Trade conciliation committees.

1. Any trade carrying on its operations within the metropolis or in the port of London, or within a reasonable distance thereof, can form a conciliation committee of its own trade under the foregoing rules.

2. Each committee shall elect its own chairman, who may be either a member of the committee or a person chosen from outside the committee. Should the chairman be a member of the committee, he shall not have a second or casting vote. If the committee, however, should elect a chairman not being a member of the committee, either as general chairman, or to preside on any special occasion, he shall not vote with the committee, and the committee shall decide at the time of his election whether he shall have a casting vote or otherwise. The committee shall also elect a vice-chairman, who shall, in the absence of the chairman, exercise the same power as the chairman.

3. In the event of any question being put to the vote at any meeting where the number of representatives of the employers and employed shall not happen to be equal, any member present shall have the right to claim that the voting power of each order shall be equal, irrespective of the numbers present. In this case the chairman shall call upon the order whose numbers predominate to exclude from the voting such a number of their order for the time being as shall suffice to produce an equality of voting between the two orders, the chairman counting himself as one of the order to which he belongs.

4. A quorum shall consist of not less than one-third of each order.

London Conciliation Board.

5. The board shall elect its own chairman and vice-chairman, who shall vote with the board, but shall not have a second or casting vote.

6. The regulations of by-law 3, as laid down for the guidance of the trade conciliation committees, shall also apply to the London Conciliation Board.

7. The chairman shall be selected from the employers of labor on the board and the vice-chairman from amongst the employed.

The points of advantage urged in favor of the London board by those interested in it are that there is an equality of representation;

that the labor members are elected annually at meetings to which all the trade unions of the city are invited; that the body is entirely a voluntary body; that it offers its services to both parties in any dispute, either pending or existing; that an effort is always made to effect a voluntary agreement rather than an arbitration, and that in case an arbitration is desired the board provides an impartial tribunal consisting of practical men, entirely disinterested in the particular dispute with which it has to deal.

That the methods adopted by this London board are approved by some who have had considerable experience in the settlement of trade troubles is shown by the text of Mr. Ritchie's proposals for the avoidance of such disputes, made to the employers' parliamentary committee and the parliamentary committee of the trade-union congress. Mr. Ritchie is chairman of the board of trade. The proposals were made in 1899 for the establishment of a national board of conciliation, and contained two features:

1. No outside interference either by a Government department or otherwise.

2. No compulsion.

He insisted that the basis of any arrangement must be mutual agreement between the parties concerned. He desired to have established in every trade a conciliation board consisting of employers and employed, to whom in the first instance every dispute should be referred. Failing to agree in this tribunal, the dispute should then go before a central conciliation board composed of employers and employed, representing all the trades. Until a final conclusion is reached by this board there should be no strike and no lockout. By adopting such a plan two great points would be gained, to wit:

1. No hostile steps would be taken by either side until the question in dispute had been thoroughly discussed by a representative body of great weight, untrammelled by local difficulties and free from individual friction.

2. That inconsiderate and hasty action on the one side or the other, often due to animosity, would be prevented.

In speaking of the proposal of Mr. Ritchie for a national arbitration board, Mr. E. J. Davis, of Birmingham, chairman of the parliamentary committee of the trade-union congress, himself a life-long trade-unionist, said:

It has been my object in life to minimize the number of disputes in the trades with which I am concerned, or with regard to which I have any influence. I am the secretary of six boards of conciliation in Birmingham, and unhesitatingly I say that I know of no case that has not been settled better by those boards than by industrial conflict. Indeed, there has not been a single failure, and the conciliation boards have been the means of bringing into existence the best possible feelings between employers and workmen.

The method pursued by the London chamber of commerce has been approved by the associated chambers of commerce of Great Britain, and conciliation boards have been formed in many of the trade centers of the Kingdom. The lines on which they have been organized vary in details, but in general scope they are modeled after the London board.

A NEW TRADES MOVEMENT, PLAN OF E. J. SMITH.

A trades combination movement, which has been attracting attention in England, where it has been applied to a number of industries, is that devised by Mr. E. J. Smith, a prominent manufacturer of Birmingham. Mr. Smith began life on his own resources, and, having worked himself up from an apprentice to a manufacturer, has taken a keen interest in all questions affecting capital and labor, the employer and the employee. He feels that they do not occupy antagonistic positions, but have interests that are identical. He is firmly convinced that his scheme of combination between the masters and the men would prove a panacea for the ills that affect the trades, and he thinks there should be no need for strikes and lockouts. He asserts that the wage question, always a distracting one, would be easily and satisfactorily adjusted, and he believes that the greatest evil in the industrial world—selling under cost of manufacture—would be prevented.

An important rule of Mr. Smith's creed is that no one ought to manufacture and sell an article without making a profit. His first step, when organizing a trade, is to discover the cost of production, a fact known, he asserts, to but few manufacturers. The next is to secure a better understanding between the employers and the employed, for without the latter's assistance the employers can not hold together and the combination can not be effected. The usual steps taken are the following:

(1) The formation of an association among the work people if none is in existence.

(2) The signing of a compact between the two associations to support the principle of trade unionism on both sides. Employers engage to employ none but union workmen and workmen engage to work for none but union or association employers.

(3) The recognition of wages and the hours and conditions of labor existing at the time of the signing of the alliance, with an agreement that so long as the alliance is in force none of these things shall be altered, or at least made worse for the work people.

(4) The payment of a separate bonus upon such wages, such bonus to be paid on the first pay day after the issue of the new price list. The first bonus is not to be interfered with during the existence of the compact, but any further bonus paid in consequence of an increase of profits is to be subject to a sliding scale. Should profits, from any reason, be decreased, the bonus shall also be decreased in the proportion agreed upon; should they be increased, the bonus shall be

increased also. The proportion of bonus is fixed upon the proportion which the wages bear in the selling prices of the article. In an article made of clay this proportion will be high, so that the bonus must be small; in an article made of expensive material the proportion of wages will be probably low, so that the bonus can be larger.

(5) The establishment of a wages and conciliation board, formed of an equal number of employers and employed, the secretaries of both associations acting conjointly, the chairman being an employer or a representative, the vice-chairman an employee. All questions as to rise or fall in profits or the fixing of new prices to be first submitted to this board, and all disputes between employers and employed to be referred to and settled by it. An arbitrator to be called in in case of a deadlock, whose decision must be accepted on both sides.

(6) Employers to have full control over the management of their works; that is, as to transferring a workman from one department to another or making any change which does not either lower wages or harden the conditions of labor or increase the number of hours; also, in all cases of insobriety, irregularity, incompetency, etc. All questions, however, of wages, and the hours and conditions of labor to be referred to the board for settlement, if found necessary. No workman to leave his employment or to be discharged over any of these questions. In cases of dispute the workman to accept the employer's terms under protest until the question has been settled by the board. All decisions given to be retrospective, so that no one can suffer by any delay.

(7) Although the board has no power to alter any of the wages or conditions obtaining at the time of the signing of the alliance, either side to have the right to bring before the board any exceptional circumstance for friendly discussion and advice.

Provision is also made for a fund for fighting and other needs of the association, and also to establish a department for investigation of complaints.

Middlemen, merchants, and factors are permitted to sell at the same prices as manufacturers. To this they are bound by agreement before being placed on schedules showing who are entitled to the privileges.

The large buyers who sell at retail are also provided for. They have the right of buying from each and every member if they care to do so. At the end of each half year they can send in to the secretary a return of their total purchases, with a claim to a rebate in proportion to the trade done with the association. The money is collected by the secretary from the members concerned and sent direct to the customer.

By this combination the manufacturer would be sure of a fair return for capital invested in the business and the work people would be certain of a living wage, below which they can not be reduced, but above which they may be fixed by the conciliation and arbitration board provided for in the agreement made between the employers and the employed. While safeguarding the interests of the masters and men by providing a minimum price below which the goods manufactured

in the trade are not to be sold and fixing a wage certain for the men, he takes the position that the interests of the public are not injuriously affected and no monopoly is established.

Measures are provided for protecting the alliance from competition with manufacturers who refuse to join the association and to drive out foreign competition should it become dangerous. Elaborate rules governing the manufacturers who join the alliance and also rules that govern the masters and men are part of the scheme.

Mr. Smith is a brass bedstead manufacturer and first applied his ideas to this trade about 12 years ago. His plan is now in full working order in the bedstead, spring mattress, fender, metal rolling, electrical fitting, brass-cased tube, and china furniture trades. In the spring mattress trade there are 30 manufacturers and 1,500 operatives; in the fender trade, 70 manufacturers and 2,500 operatives; in the metal rolling trade, 40 manufacturers and 10,000 operatives; in the electrical fitting trade, 7 manufacturers and 1,500 operatives; in the china furniture trade, 8 manufacturers and 1,800 operatives, and in the cased-tube trade, 30 manufacturers and 2,500 operatives.

The alliance is, more or less, formed in the marl division of the pottery trade, in the jet or black teapot trade, in the Rockingham or brown teapot trade, in the earthenware trade, and in the glass-bottle trade, covering Scotland, Ireland, Lancashire, Yorkshire, and the eastern counties. No trade, Mr. Smith assured the writer, that has adopted the movement has ever given it up.

The gas and electric-light fittings trade, the cabinet brass foundry trade, the plumbers' steam and beer fittings trade, bedstead mount and fender-support trade, the fender and fire brass trade, and the coffin furniture trade in Birmingham are governed by the alliances between the manufacturers and the workmen formed according to the scheme devised by Mr. Smith. The rules pertaining to conciliation and arbitration boards are, with trifling exceptions, the same, and are as follows:

I. The board shall be called the conciliation board, etc.

II. The objects of the board shall be the amicable settlement of all disputes between the manufacturers of and workmen engaged in the manufacture of, etc., as to the amount of day wages, piecework prices, and the hours and conditions of labor.

III. The board shall consist of a member of each of nine firms belonging to the manufacturers' association and an equal number of men belonging to the workmen's society.

IV. At their first meeting the board shall elect a chairman from among the representatives of the manufacturers' association and a vice-chairman from among the representatives of the workmen's society, both of whom shall hold office for one year. In case of the absence of the chairman the vice-chairman shall take the chair. All meetings of board shall be at 7 p. m. when practicable. In the event of any member being unable to be present the secretary on either side shall be entitled to send a representative of such member, and no meeting shall be held unless there be an attendance of at least four representatives of each association. The chairman and vice-chairman shall each have one vote only (without a casting vote).

V. The secretaries of the two associations shall act as joint secretaries to the conciliation board.

(a) They shall record the proceedings of the meetings, and each association shall have a copy.

(b) All meetings of the board shall be convened by circular signed by the joint secretaries. Not more than seven and not less than three clear days' notice of all meetings, stating the business to be transacted, shall be given, and no other business shall be transacted.

VI. No dispute shall be brought to the notice of the board until all reasonable effort has been made to settle the dispute in the ordinary manner, viz: First, by negotiations between the employer and his employees, and, secondly, by negotiations between the employer and the officials of the National Society of Amalgamated Brassworkers.

VII. No member of the workmen's association shall leave his work on account of any dispute as to the condition of his labor, or to the prices paid; neither shall any member of the manufacturers' association stop his employees from their work, or lock them out on account of any such dispute, until the dispute has been referred to and adjudicated upon by the conciliation board.

VIII. If any member of the board is personally concerned in any dispute referred to the board, it shall be competent for either secretary to object to his participating in the discussion, and notice to that effect shall be given two days before the meeting to the secretary of the association to which the member belongs, and such secretary shall summon another member of his association to sit on the board while the dispute is under consideration.

IX. No workman shall be prejudicially affected in his relationship to his employer, or to his fellow-workmen, by any action he may take in fulfillment of his duties as a member of the board, or because of any evidence which he may give to the board; and the employer of any workman, being a member of the board, or of any workman whose presence before the board may be necessary, shall give facilities for attending any meeting that may be held during working hours.

X. Any member of either association shall, if called upon, appear before the board to give evidence as to any matter which may be under consideration.

XI. Should the two secretaries declare a question contentious, only an equal number shall take part in the voting. Any matter which can not be amicably settled by the board, shall be referred to the board of trade to be dealt with under the conciliation act, 1896.

XII. The board shall pay all administrative expenses it may incur.

XIII. In case the manufacturers' association or the workmen's association wish to dissolve the board, they may do so by giving three months' notice to the secretary of the other association.

THE BRASSWORKERS TRADE.

In his annual report for 1898 to the National Society of Amalgamated Brassworkers the secretary wrote:

The executive continues to devote its energies to obtain advances of wages and prices and to remove anomalies and grievances. It never misses an opportunity to settle differences by mutual negotiation, avoiding wherever it can trade conflict. Twenty-six years' experience has conclusively proved that it is far better to avert strikes and lockouts than to encourage or provoke them.

Boards of conciliation have worked to the advantage of employer and workmen. Differences which might have led to abstention of work have resulted when discussed by both sides in happy solutions;

and on no occasion have such means been unequal to the task of arriving at a mutual settlement.

Again in the report for 1899 he wrote :

The executive has been actively engaged throughout the year in directing the policy of the society and its agencies, also in advising the members in difficult and trying circumstances. Whenever it can, it prefers to settle by conciliatory rather than arbitrary means. In this spirit nearly 100 cases of dispute have been decided to the satisfaction of employers and workmen. Instead of there being any abatement or lack of interest in its arduous labors, its energies have been redoubled to the profit and advantage of all. It has occasionally to sanction the suspension of labor, but this is in cases where the employer wants to force members to work under conditions degrading to manhood and detrimental to them as wage earners.

Mr. E. J. Davis, one of the most prominent trade unionists in Great Britain, and the general secretary of the National Society of Amalgamated Brassworkers, said to the writer that cases of repudiation of an agreement or an award are so exceptional that they are not worth mentioning in discussing the system. If the points of reference are agreed to on each side it is almost the invariable custom that all concerned carry out the decision loyally.

Never was there a time in industrial warfare in England when both sides were better organized, and never did they work together with such harmony. Even after the engineers' strike in 1897 there was formed a board to conciliate great disputes in that trade, before which time no such board existed. There is more recognition of trade unionism by the employers in the engineering industry than before the struggle commenced.

Perhaps the greatest federation in all England is that for the Colliery Proprietors and the Miners' Federation of Great Britain. Since the coal strike in 1895 the joint board has worked harmoniously without any trade conflict worthy of note.

In many of the English trades there are boards of conciliation, and disputes are prevented in the aggregate hourly. The principle has permeated and extended to all branches of trade. The moral effect, Mr. Davis says, has been to give the officials of the trade union more power over their members. This has been used in the interest of sobriety and also to steady the ardent or injudicious spirits who sometimes act more from feeling than from a logical consideration of grievances, or grievances too insignificant to go to war on. This power is transmitted from the fact that the employers act in a concentrated way through an association, whereas formerly they had no such association, and much guerrilla warfare was the consequence.

Mr. Davis states that there is no strong desire among the workmen for compulsory arbitration. The men have gained by voluntary arbitration, and are strong supporters of it, being wise enough to see its advantages to their welfare.

CONCLUSION.

The system of voluntary conciliation and arbitration, as carried on by private agreement, is elastic and applicable to all conditions. It can be used under the most elaborate or under the simplest rules; it can be proceeded with either with or without an umpire or referee, and proves satisfactory when the only provision is that the two sides shall meet and attempt to settle the difficulty before an appeal to harsher methods. It can succeed whether the questions to be decided are difficult and intricate or plain and simple. In the manufactured-iron trade the board has been continued without serious friction during a period of 30 years, while in that time the men have seen the trade go through all the processes from iron to steel. The same experience is to be found in the lace trade, where many changes have been made and many new questions settled amicably since the formation of the board, in the sixties. So, likewise, in the boot and shoe and cotton-spinning trades great changes have been wrought by the introduction of machinery, and all the new schedules and prices have been arranged and agreed to with comparatively few serious disagreements and collisions.

Many different methods for settlement of wages and disputes are provided for by the several conciliation and arbitration boards. Some have tried plans resulting in preference for the sliding scale. In other trades the scale is objected to because the audits may be too far apart, and consequently too slow in responding to an advancing market. On the other hand, there would likewise be delay in responding to a declining market.

Some boards have an equal representation of the two sides with equal voting strength, and in case of a disagreement the question is referred to an umpire. The latter may be chosen for the particular occasion or he may be a standing official in the trade. The shoe trade has Lord James as the standing umpire. Sometimes the umpire is an expert in the trade and sometimes a judge, accustomed to hearing and weighing evidence. The men in the engineering trade prefer not to have technical men in the trade for officials in an arbitration, believing that they are inclined to favor the employers from whom they receive work. On the other hand, the employers avoid those officials who, having political ambitions, might court popularity by making a decision favorable to the men.

Not infrequently there is no provision for an umpire or referee, the two parties thinking if they can not agree after thrashing out the question there would be little use in having a third person pass upon it.

In the boot and shoe trade a forfeit of £1,000 (\$4,866.50) is deposited by each side for the faithful carrying out of the terms of settlement.

Against this fund Lord James, the referee, recently gave an award of £300 (\$1,459.95) for a breach of the rules by some London workmen. In other trades fines are imposed for either nominal or actual damages; but these measures seldom have to be enforced, for the two sides have been most careful to see that the settlement, when made, shall be faithfully adhered to. In case an employer refuses to accept the award he is not supported by his fellow-manufacturers, but is left to be dealt with as the workmen see fit. In case the men hesitate about complying, all the power of the union is used to hold them in line; and should they persevere in their refusal they are abandoned by the union, and have great difficulty in securing employment, as is shown by the experience of recalcitrant weavers in the lace trade.

Contact on these boards has fostered respect and good feeling. The masters, who years ago, by holding themselves aloof, created the impression that they were the dominant, the men the servient, factor in the trade, have now lost in large measure their autocratic characteristic and meet the men on an equality in a friendly, conciliatory way. Brought together as they have been, face to face, in the meetings, both sides have learned to see things in a clearer light, and false pride and obstinacy, always barriers to amicable understanding, have been broken down. Open discussion about a common table has shown points of view either of one side or the other not before thought of by the opposition, and very naturally a far better understanding, on the whole, exists to-day than ever before between employers and employed, which must make for peace and happiness and be the basis for all negotiations between capital and labor.

To create and continue this good feeling care must be taken by the associations to elect as their representatives, not radicals, but men of strong common sense and honesty of purpose, masters fair enough to see the justice in the case presented by the men, and representatives of the men who have courage to accept a decrease when the situation demands it. In a word, extremists must be excluded and those alone chosen who seek the truth, and, once finding it, are willing to stand fast to the agreement and urge its adoption by their association.

It is all the better for harmonious working on the board if, as nearly as may be, the same men be selected year after year to serve as representatives of the respective associations. When this is the case, previous contact enables the board to transact business expeditiously, and lose no time in attempting to discover the motives and temperament, each of the other. Then, too, the men themselves must implicitly trust their representatives, who should be given authority to agree to any settlement without referring to the main body of their constituents, since this power enables the representatives to settle a dispute quickly and often to obtain better terms. If the final power is vested in the men, there is sometimes difficulty in securing their approval of

the terms agreed upon, because of the lack of full explanation and the ignorance of the exact situation and surroundings.

If men and employers meet in all fairness and kindness, and are careful to arrange for cooperation and mutual good, many of the differences can be and are constantly settled without hostilities of any kind. The best of feeling exists, and disturbances have been few where the men are treated with proper courtesy and frank interest, for the suspicion with which years ago the opposing sides viewed each other has, in large measure, disappeared in those trades where the principle of conciliation and arbitration has been longest recognized.

Under arbitration as conducted in the early days the men were unable to get the facts with which to meet the masters' statements. In such arbitrations each side came to prove its case and the men usually failed for lack of data. This was particularly the case in the potteries trade, where the poor success or failure of the men in arbitrations caused so great dissatisfaction that the board was dissolved. The men felt they had not been given a fair hearing and could never succeed under existing conditions. While they might and perhaps did agree to the award of the umpire, it was a sullen and not a cheerful acquiescence.

Where formerly it was almost impossible for the men to know the facts concerning the state of trade and the prices of raw material and the finished product, the desired information is now secured by the aid of audits by trained accountants. The testimony of some manufacturers is to the effect that knowledge so acquired has satisfied the men as nothing else could, and the confidence thus given has not been violated.

Again, under the old method of warfare the men took advantage of a brisk trade to demand an increase of wages; the masters likewise, when trade was dull, demanding a decrease with the usual result—a strike on each occasion. Now, when an agreement is reached, provision is usually made that at least one or two months' notice must be given of any demand for increase or decrease. In the trades where the prices are regulated by audits and the sliding scale is used, changes are prohibited in less time than two or three months. In the coal trade, for example, a standard wage has been decided upon, the agreement being that wages can not go more than a certain per cent higher than that limit, and no increase shall be more than 5 per cent. Such agreements, coupled with the provision that there shall be no cessation of work pending the dispute, give security to the trade. The master can make contracts with the confidence that wages can not be increased and that no strike will prevent delivery of his product. The men feel secure in their wages, and they know also that all peaceful means will be exhausted before work will cease and a lockout be declared. This provision, according to the testimony of all with whom

the writer came in contact, is of incalculable value. Some slight dispute, which in the olden times might have developed into a strike, is now immediately carried for settlement to the conciliation board and causes no excitement among the men and but little concern to the employers.

When a slight dispute arises now, the piece in question is immediately marked and the secretary of the men's association is notified of the claim. He, in turn, notifies the master's secretary, and a meeting is arranged. Pending this meeting work continues as if nothing had happened. If the decision favors the workmen, they are paid for the disputed work at the new rate from the time the piece was marked; if in favor of the employer, nothing above the usual rate is paid.

One object of the boards has been to reconcile labor and capital and put into practice justice and morality. Where fairness and candor, with a desire to reach a just conclusion, have been shown, there exists a good feeling to-day between the masters and men. Much of this success has been achieved by the farsightedness and honesty of some manufacturers, who observed, in advance of their associates, the changes which have been taking place in the industrial world. Where each side has entered the board with the true spirit of conciliation and a desire to secure a fair result, little difficulty has been met in reaching a decision fairly satisfactory alike to masters and men. The effort of the board members must be to agree, not to differ. They must be actuated by a desire to reach a settlement, and not have recourse to strikes on the one side or lockouts on the other.

Notwithstanding the severity of some great strikes in England and the reported success of the compulsory law in New Zealand, the writer could find little or no sentiment favoring arbitration by means of a statute. All previous legislation in respect to labor and wages has been ineffectual, and the opinion expressed more than twenty years ago by Mr. Compton that "the law and our tribunals, admirable and worthy of veneration as they often are, can not be the means of reconciling capital and labor," finds as hearty response as when first written. The prevailing opinion among the employers and employed favors conciliation first, arbitration rather than a strike, and then a referee or umpire to whom appeal can be made for final decision and settlement.

Such are the views expressed by representatives of capital and labor on the desirability and advantage of settling differences by conference, and, if necessary, by arbitration. Lest more testimony on so important a movement be regarded as necessary, it has been deemed wise and altogether fitting to give, in an abbreviated form, the opinions expressed by some of the men in England who have been longest identified with labor matters and the settlement of trade disputes. These sentiments were uttered at a conference called by the Bishop

of Durham in 1893 for the purpose of discussing the desirability of forming boards of conciliation and arbitration in Durham and Northumberland. The masters, the men's representatives, umpires, and referees all agreed that conciliatory measures ought always to be tried first and that a strike or lockout should never be ordered except as the very last resort.

Mr. T. Burt, M. P., a representative of the miners, in opening the discussion, said he wanted conciliation first of all, for it was best to settle their differences by reason and argument. It is better for employers and employed to agree without the intervention of third parties than to go to an arbitrator; but it is infinitely better that there should be arbitration in the background, so that if conciliation fails the differences can be settled by some more rational method than the strike or lockout.

Sir David Dale, an iron manufacturer, whose ability and fairness are so marked that the men are content to rest their interests in his hands, said that, notwithstanding some objections to arbitration, his conclusion was that of all risks attending the remitting of some important question affecting a whole district and a large number of men to the judgment of one person that was less than the risk of endeavoring to settle the question by strike or strife. He favored a provision for submission to arbitration after conciliatory methods had been first tried and had failed. The very existence of such provisions would tend to promote the coming to an agreement.

To make joint committees and conciliation and arbitration boards successful it is necessary to have represented the large preponderance of employers and employed. He deemed it desirable that the body of representatives should be implicitly trusted and that there should be put into their hands a very large amount of power to negotiate and even settle. Absence of such power had frequently led to a settlement less favorable to the men than one they could have secured had they possessed full power.

One of the chief advantages of conciliation is the fuller and more complete information of facts bearing on the condition of trade that the representatives of the men acquire. The disposition of the employers is to be candid and to lay facts very fully before the workmen. Mr. Dale's opinion is that the best method of dealing with trade differences is by conciliation, with arbitration as a last resort.

The chairman of the North of England Iron and Steel Conciliation Board declared, after 25 years' experience, that conciliation was one of the great principles that ought to guide employers and workmen in the settlement of disputes. The coming together of masters and men in discussion had almost eliminated partisan speeches, and the point had been reached where the two sides spoke with determination and justice, and the workmen's representatives were determined to do what was right in spite of the operatives who sent them.

The conciliation board has become an element of education. The two sides wanted to enlighten each other, to understand each other, believe each other, and to discuss matters and lay open their minds fully. The men sent to the iron and steel board are not only increasing in intelligence, but improving in character, as the years go on. The chairman said he sympathized with arbitration 25 years ago and he sympathized with it even more now, believing that it had in it the elements of wisdom, justice, and permanency.

Mr. Robert Knight, secretary of the Boiler Makers and Iron Shipbuilders' Society, said his experience with conciliation had been a very favorable one indeed. His society numbered 40,000, and though their work was complicated, they found they could adjust their differences much better by meeting the employers and talking and arguing the points of difference than they ever could by resorting to a strike. Wages were better, because of the way in which they had settled their differences, than they could have been if strikes had been ordered. No sacrifices had been made in arguing the questions with the masters, who met the representatives as gentlemen and treated them in an honorable fashion. To make a conciliation board successful it was necessary to have a strong association, both of employers and men. In his opinion it was easier to deal with an association than with individual employers. The latter exhibited more selfishness when looking after their own interests than they did when a large number acted together, and better wages were secured. He said further that conciliation should always precede a strike. Calling the men out always widened the breach and made it more difficult afterwards to settle the trouble. Then, there should be a close relationship between the two associations, and not cold indifference. One side should never try to take advantage of the other, and any agreement made should be faithfully carried out. Finally, the same men should be sent to deal with the employers time after time, for in that way the employers and the men's representatives grew to understand each other, and more satisfactory results followed.

Mr. Trow, of the iron and steel trade, said that with them no striking was allowed, and no support given to men who refused arbitration. He favored the meeting of the two sides on a perfect equality, and the giving of all necessary information to the men's representatives in every dispute. In his trade numerous advances had been secured by arbitration, they having gained more through that method than by strikes. The representatives should be selected by secret ballot, and when once elected, should have power to deal, while the men should be prepared to carry out whatever their representatives agree to. Arbitration should be voluntary and every award should be carried out faithfully, whether the workmen lose or win. Trade unions were the result of tyranny; arbitration is the result of strikes, and

the result of conciliation and arbitration together will be the success of productive cooperation.

Dr. R. Spence Watson, who officiated as an arbitrator on many occasions, in speaking of his experience said that conciliation was peace; but arbitration was a modified kind of war. In an arbitration there are two parties, each endeavoring to make the better case before a judge who is to give the decision; in conciliation the two parties meet without the judge and endeavor to convince each other by arguing across the table. Arbitration is impossible, either when the masters make a demand which, if granted, would not afford the men a living wage, or when the men make a demand which, if granted, would mean bankruptcy to the firm.

The moral value of conciliation is enormous. The fact that masters and men meet around the same table upon the same level and with the opportunity of ascertaining each other's standpoint, of giving and taking an argument, and of ultimately being swayed by reasonable considerations, is of great value. The men must trust their representatives and give them authority to settle.

In arbitration there is always the risk that through the ignorance of the arbitrator upon technical matters, some mistake may occur. In conciliation the men who know every detail of the business meet and try to convince each other. In arbitration these men, having failed to agree, go frequently to some man, as arbitrator, who knows nothing about the business, and ask him to decide the question at issue. Still, with all its dangers and difficulties, Mr. Watson regards arbitration as far better than a strike. The best way is to settle the case by mutual agreement and forbearance, but arbitration is always better than open warfare.

Mr. John Wilson, M. P., preferred any mode of settling disputes to the brute force of a strike, though strikes on some occasions have been useful. The men to be appointed to the conciliation board should be men above doubt and suspicion. Conciliation is a mode of machinery in advance of arbitration, and it should enter into an investigation of the cost of production. If the men on the board are trusted, then they should have cognizance of what it takes to produce a ton of coal; but they should not be expected to expose it in the press and on the platform.

A workman declared they all favored the principle of conciliation and revolted at the idea of a strike. The strong point and the real question in conciliation was facts and figures, and the men should be put in possession of them in order to deal with the various questions. They had experience with the joint committee for 22 years, and by it had settled local disputes satisfactorily. He believed if the powers of the joint committee were extended and the masters allowed the men's representatives to investigate matters fully the men would not ask

that the facts and figures be exposed. If the owners held back, as in the past, there could be no conciliation. The men had never been in position to defend their case as they desired, and jealousy arose. Formerly when the demand for an increase was made and the owners said the books showed facts which would not justify them in granting it no workman knew whether that was so or not. The workmen did not want more than they were entitled to. With a board organized and formed on truth and justice there would be no trouble.

This investigation will not have failed in its purpose if the publicity given to the facts and opinions here presented offers any suggestions for avoiding harsh measures, tends to establish more friendly relations between capital and labor, or helps in any way to spread throughout this vast country, rich in its manifold industries, those principles which have solved in a satisfactory manner many intricate and perplexing problems which have confronted the manufacturers and workmen of England during 40 years of constant change and growth.

SYSTEM OF ADJUSTING SCALE OF WAGES, ETC., IN CERTAIN ROLLING MILLS.

BY JAMES H. NUTT.

Having been employed in June, 1892, and continuously since, by certain mills manufacturing bar iron and steel as an adjuster of wage scales and other differences that have arisen between the manufacturers and the employees, it seems probable that an account of the system under which my duties have been performed and my experiences, together with some expression of opinion as to the results and benefits of such system, would be of interest to those whose attention has been directed toward the conditions of the labor interests of the country.

The concerns for which I have worked were all independent until recently, when they formed what is known as the "Labor Bureau Association." The mills contained therein are all situated west of Pittsburg, Pa., and include nearly all the bar-iron manufacturers doing business west and south of Pittsburg. These mills all negotiate with the Amalgamated Association of Iron, Steel, and Tin Workers.

The method by which differences between the parties are settled and adjusted may be described as follows: In June of each year the manufacturers meet in conference with a committee representing the workmen and make an agreement for the year beginning on the 1st day of July following, concerning the scale of wages, etc. The duties of the adjuster require him to be present and assist in the making of the scale of wages, which is based upon the sales and shipments of base sizes of bar iron. The price per pound received for material shipped during May and June will fix the price per ton that the workmen will receive for their labor during July and August, and so on for every two months during the year.

At the end of each bimonthly period the manufacturers make sworn statements to the adjuster and, together with a committee of 3, one of whom must be an officer of the National Lodge of the Amalgamated Association of Iron, Steel, and Tin Workers, he goes over these sworn statements and, according to what the price at which the material was sold is found to be, it is decided whether or not there shall be an advance or reduction in the wages of the workmen.

Under the agreement made in the annual June conference, if for any reason the committee of 3 are not satisfied with the sworn reports,

they have the right to examine the books and accounts from which these reports are made. In case of any disagreement in any of the mills as to the construction of the agreement made in the annual June conference, the matter is referred to the adjuster by the manufacturers, and it then becomes his duty to visit the works and endeavor to make a settlement with the parties interested. If a failure results from this attempt at adjustment, the proper officer or officers of the amalgamated association are brought in, and the question is taken up and discussed from a national standpoint, and, as a rule, a satisfactory adjustment is arrived at.

In addition to the question of the wage scale, the enforcement of rules and cases where workmen are discharged form the major part of the differences adjusted.

The contract with the amalgamated association under the agreement made at the annual conference expires on the 30th of June in each year, and sometimes it has proved impossible to reach an agreement upon the terms for the coming year by that date. In such a case the mills all close down pending negotiations, but a strike is not declared until the representatives of the manufacturers and of the workmen fail to agree and adjourn without date. Sometimes the negotiations have kept up for over a month after the mills have closed down, and still no strike takes place. This method preserves the funds of the union, as no strike benefits are paid until negotiations are broken off.

During the time that this system of adjustment of differences has been in operation—since 1892—in but one of the many differences which have arisen has there been a failure to arrive at an adjustment, and there has been but one strike through a disagreement where the negotiations have been conducted by the adjuster. He has been able to prevent many troubles for the men and many petty strikes which would otherwise have caused much annoyance to the manufacturers.

Being an ironworker himself the adjuster knows the difficulties with which the workmen have to contend, and from his position in the employ and the confidence of the manufacturers, he receives from them full explanations of their side of the question in dispute. On this account he is prepared to give the workmen the employer's side of the question, and, as he discusses it with them from a practical rather than a business standpoint, he can usually state it in a way that appeals to them more than if the employer himself were to lay it before them.

Many employers have not the patience to listen to and argue a point with an employee. They firmly believe themselves to be in the right and can not understand why the employee does not grasp the situation and see it as they do. The average workman only wants what is fair and right, but often it requires time and patience to demonstrate the right to him. In these adjustments the result of the deliberations are gen-

erally in the nature of a compromise, as there is almost always right on both sides which has to be respected.

Both the employers and the employees seem to be very well satisfied with this method of adjustment of differences. This is shown on the part of the employees by the fact that the officers of the union have often notified the adjuster that they have been called to a certain mill before he has been notified by the firm, and by the further fact that in certain instances the workmen have left it to his decision, in case of disputes, thereby putting him on his honor to deal fairly with both sides.

Experience in the methods employed to adjust disputes between the ironworkers and the manufacturers has brought me to the conclusion that this system, as here described, is by no means perfect, but is, at the same time, a great improvement upon the methods adopted by a good many labor organizations. When once the scale of wages as agreed on is signed, it is quite certain that the mills will run for the year without interruption, so far as labor difficulties are concerned, for if any difficulty arises the rules of the amalgamated association provide that work shall be continued pending an investigation by both parties to the controversy, and for this reason most of the disputes lose that bitterness which is caused by the sudden stoppage of the works. Such a stoppage seriously interferes with the plans of the employers, and always causes more or less serious financial loss to both parties to the controversy.

As has been stated, the contract between the manufacturers and the workmen expires on the 30th of June of each year, and if an agreement is not arrived at by that time, all mills controlled by the Amalgamated Association stop work until an agreement is reached. This plan has several faults, in that it often interferes with the placing of contracts that run past the 1st day of July, and in that way discriminates against the employer who recognizes organized labor and in favor of the one who does not. Again, by stopping work a large body of men who have no interest in the result of the negotiations, and will not be benefited, no matter what the result may be, are thrown out of work, and these very men are the poorest paid of all laborers in the mill, and can ill afford to live in enforced idleness.

It would be much better could work be continued until an agreement was reached or negotiations broken off. If this could be done, and then on the failure of negotiations the matter in dispute referred to arbitration, both parties to abide by the decision, it seems as though we should come about as near to a solution of the labor problem as we can expect to do so long as human beings are actuated by the same selfish motives that they are to-day.

FOREIGN LABOR LAWS. (a)

BY W. F. WILLOUGHBY.

AUSTRIA. (b)

The union of Austria and Hungary being chiefly for political purposes, each country regulates its own domestic affairs without reference to the other. In consequence of this independence each possesses its own system of industrial legislation. The accompanying description of the labor laws of Austria must therefore be understood as applying only to that country and not to the whole Austro-Hungarian Empire.

But little reference need be made to legislative enactments prior to the act of December 20, 1859, when, for the first time, the effort was made to provide a general scheme of industrial legislation. As in Germany, the earliest legal regulation of labor in Austria related to the formation and control of trade guilds, the protection of the handicrafts, and the fixing of the conditions of apprenticeship. The most important of the early regulations concerning apprentices was the

a In Bulletin Nos. 25, 26, and 27 the labor laws of Great Britain, France, Belgium, Switzerland, and Germany have been considered. In the present Bulletin those of Austria are shown. In more summarized form the labor legislation of other countries will be given in a subsequent Bulletin.

b In the summary here given of the laws in Austria use has in all cases been made of copies of the laws themselves. These can easily be consulted in the two numbers of *Manz'sche Gesetz-Ausgabe*:

Die Gewerbeordnung. Mit den einschlägigen Gesetzen und Verordnungen, mit Erkenntnissen des Verwaltungsgerichtshofes, von Dr. Franz Müller. Seventh edition, Vienna, 1899.

Die Gesetze über das Vereinsrecht, vom 26 November, 1852, und vom 15 November, 1867; das Gesetz über das Versammlungsrecht, vom 15 November, 1867, nebst den zu diesen Gesetzen ergangenen Verordnungen, Erlässen und Entscheidungen, von Dr. Friedrich Tezner. Second edition, Vienna, 1894.

In the analysis, and especially in the statement of prior existing legislation, use has been made of other works, among which the following should be mentioned:

Conrad's *Handwörterbuch der Staatswissenschaften*, and the two supplemental volumes published in 1895 and 1897.

Royal Commission on Labor, Great Britain. *Foreign Reports: Austria-Hungary, etc., 1894.*

Report of the Chief Inspector of Factories and Workshops for the year 1895, Great Britain (contains a report by Miss A. M. Anderson on Protection of Labor in Industry, Austrian Empire).

Annuaire de la législation du travail. 1^{re} année, 1897; 2^e année, 1898. Office du Travail, Belgique, 1898 and 1899.

La législation du travail en Autriche, par Hugo Herz. A report made to the Congrès International de Législation du Travail, à Bruxelles, 1897.

royal order of 1786, which related to apprentices in factories, and required, among other things, that apprentices should have separate beds and be washed at least once a week; that the boys and girls should sleep in separate bedrooms; and that, except in cases of necessity, children under 9 years of age should not be employed in factories.

Between 1786 and 1859 various regulations were enacted concerning the protection of apprentices, the regulation of the employment of children in factories, Sunday work, etc. Of these the most important was the decree of June 11, 1842. This decree raised the general age limit at which children could be employed in factories to 12 years, with the proviso that the local authorities might permit children between the ages of 9 and 12 years to be employed if they had had 3 years' schooling. At the same time the duration of labor of children under 12 years of age was limited to a maximum of 10 hours per day, and of those from 12 to 16 years of age to 12 hours per day. Night work was prohibited for children under 16 years of age.

A penalty was fixed for the failure to comply with these regulations, and their enforcement was intrusted to the local school and ecclesiastical authorities.

These and other regulations promulgated during this period made numerous restrictions upon Sunday work, the motive for which, however, was religious rather than economic. It is interesting to note, also, that the evils of the truck system were apparent, and that as early as 1791 this system was legislated against. On the other hand, there appear to have been no regulations restricting the employment of women.

It was not until 1859 that these various orders and regulations were brought together and harmonized. On December 20 of that year there was promulgated (*a*) a general labor law which to-day constitutes the fundamental law of the country in relation to labor. This law has never been repealed. All subsequent legislation consists of laws either specifically amending it in certain features or filling gaps that had not been covered.

The enactment of this law had been rendered imperative by the changes that had taken place in industrial methods, the development of manufacturing upon a large scale, the decline in power of the old guilds, and the obsolete system of trade concessions. The chief purpose of the law of 1859 was, therefore, to relieve industry from the various restrictions with which it was burdened, to make necessary distinctions between regulations applying to factory work and the handicraft trades, and to unify and harmonize regulations applying to the conditions of employment of labor.

It will not be practicable to trace the various steps by which this code has been modified in the 40 years that have succeeded its enact-

ment. Instead there will first be given a list of the principal laws in relation to labor that have been passed since 1859, after which a description of the labor laws in force at the present time will be entered upon. The list of laws follows:

1. Law of November 15, 1867, concerning right of laborers to form organizations.
2. Law of November 15, 1867, concerning right of laborers to hold meetings.
3. Law of May 14, 1869, concerning industrial arbitration tribunals.
4. Law of April 7, 1870, concerning right of laborers to form organizations.
5. Law of March 15, 1883, amending the labor code of 1859.
6. Law of June 17, 1883, concerning inspection of factories.
7. Law of March 8, 1885, amending the labor code of 1859.
8. Law of January 16, 1895, concerning Sunday labor.
9. Law of November 27, 1896, concerning industrial arbitration.
10. Law of February 23, 1897, amending the labor code of 1859.
11. Imperial order of July 21, 1898, creating a bureau of labor statistics.

It should also be stated that to some extent labor is regulated by provisions in the civil code (*Allgemeines bürgerliches Gesetzbuch*) and in the commercial code (*Handelsgesetz*).

The scope of the industrial code of 1859 has been maintained in subsequent legislation down to the present time. Before entering upon the consideration of its particular provisions, it is essential that a general idea should be obtained of the principle according to which it is framed and the different classes of works to which it applies.

In general terms the labor code relates to all classes of industrial work carried on in establishments. It does not, therefore, relate to casual day laborers, persons engaged in the so-called household industries, in agriculture, forestry, mining, the fisheries, or railway transportation, nor to such highly skilled and highly paid employees as artists, chemists, etc.

All industrial establishments coming under the code are divided into three classes: (1) Handicraft trades (*handwerksmäßige Gewerbe*); (2) licensed trades (*concessionirte Gewerbe*), and (3) free industries (*freie Gewerbe*).

In regard to the first, the law declares that those trades shall be considered as handicraft trades in which a considerable degree of manual skill is required, which skill can in general be acquired only by a special course of training and work in the trade itself. Until the law itself makes an enumeration of the trades which properly belong to this category, the minister of commerce, acting in conjunction with the minister of the interior, is empowered to do so by means of an official order. Such an order was duly issued September 15, 1883, and specifies 47 skilled trades which are to be regarded as handicraft trades.

Licensed trades are those industries which the public good requires

should be prosecuted only after a special permission has been obtained from the Government. This class, however, has been made a very comprehensive one. It not only includes such industries as the manufacture of explosives, fireworks, firearms, medicinal preparations, etc., which are usually in all countries subjected to special regulation, but embraces a large number of other trades not usually placed under special control. Among these may be mentioned all industries for reproducing literary and art products, either by mechanical or chemical processes, and all engaged in the sale of such products, master builders, master well diggers and master masons, stone cutting and carpentering trades, saloons and restaurants, plumbing, gas fitting, and lighting arrangements, dentistry, etc.

All industries not included in either of the two preceding categories are regarded as free industries. In this last class fall factories and commercial establishments other than those specially enumerated in the list of licensed trades.

The foregoing threefold division has as its main purpose the separation of work into classes according to the formalities that must be observed before any person can undertake its prosecution. From the standpoint of the present study the most important distinction is that which places the handicraft trades in a group separate from factory or commercial work proper. A further distinction that should be made is that between large industrial establishments (*Fabriken*) and small shops (*Kleingewerbe*), as many of the provisions of the code relate only to the first class. The essential principle of the classification is that only those establishments where over 20 persons are regularly employed are considered as factories. Other features, however, are taken into consideration, such as the way the work is carried on, the use of machinery, etc., so that it is not always an easy matter to determine to which class an establishment belongs.

RIGHT OF ASSOCIATION: TRADE UNIONS.

Freedom, such as exists in the United States on the part of workmen to form organizations for the protection or advancement of their mutual interests, has always been considered in Austria as a privilege which can not be granted, except under rigid restrictions, without danger to the existing political and industrial organization of the country.

A general law relating to the formation of companies and associations of various kinds, such as those for gain or religious purposes, was enacted November 26, 1852, and subsequent laws were passed in relation to particular kinds of organizations. None of these, however, related to combinations of laborers, and such unions were therefore illegal. The right of workmen to form organizations, moreover,

was absolutely prohibited by both the penal code of 1852 and the general labor code of 1859.

This prohibition was first removed by the passage on the same day, November 15, 1867, of two closely related laws, which are still in force—the one (*Gesetz über das Vereinsrecht*) relating to the right of forming unions and the other (*Gesetz über das Versammlungsrecht*) relating to the right of assembly or of holding meetings. These laws, while removing the absolute prohibition that had existed, subject the formation of unions or the assembling of workmen to the performance of various requirements, and provide for a rigid governmental control. Each of these laws will be summarized in turn.

The law concerning association provides that unions (*Vereine*) can be formed by workmen only in conformity with its provisions. Specially excepted from its provisions are all unions or associations organized for purposes of gain, banks, insurance companies, and the like, all religious orders or congregations, bodies such as guild and guild organizations created by virtue of the general labor code, and relief funds and other organizations provided for in the law relating to mines.

Persons desiring to form a union, as comprehended under this law, must file with the political authorities (*politische Landesstelle*) 5 copies of the constitution of their proposed union. This constitution must show: (1) The purpose of the union, its resources, and the manner of obtaining them; (2) the method of organizing and changing the union; (3) its location; (4) the rights and duties of members; (5) the scheme of government adopted; (6) the conditions under which proclamations, resolutions, etc., are made; (7) the method of deciding disputes regarding the affairs of the union; (8) the representation of the union by delegates, and (9) the provisions regarding the dissolution of the union.

In case the constitution is approved, one copy will be retained by the political authorities, one will be made use of for statistical purposes, one will be sent to the political authorities of the district in which the union is located, one will be turned over to the official having special charge of unions (*Vereinsreferent*), and the remaining copy, with the certificate of approval annexed, will be returned to the person filing it.

The copy of the constitution on file must be open to the inspection of all persons, and copies of it can be made when desired.

The authorities are allowed 4 weeks in which to take action upon the request that a constitution of a union be approved. Approval can be refused if the union relates to matters or comprehends action in violation of law, or that is believed to be dangerous to the security of the State. The applicants must be notified when a constitution is disapproved, and informed of the reasons for such action. In such cases an appeal can be taken within the next 60 days to the minister of the interior.

When an application has not been disapproved within the 4 weeks following the filing of copies of the constitution, or the applicants have earlier been informed that their application will not be disapproved, the union can begin operations. Whenever requested by a recognized union, the authorities must issue a certificate setting forth, according to the contents of the constitution, that the union is legally constituted.

The foregoing provisions apply equally to the formation of branch unions and federations of unions, except that those unions or federations which have branches in a number of countries must file their constitutions with, and make application for authorization to begin operations to, the minister of the interior instead of the political authorities of the State.

After a union is legally constituted, its governing board must send to the authorities a list of all members, indicating their addresses, and those who are deputed to represent the union in dealings with third parties, within 3 days after their admission. This information must be furnished by each branch of a federation of unions. The authorities must also be furnished with 3 copies of all reports, accounts, or similar documents which are distributed among the members. Compliance with the provision can be enforced by the authorities by the imposition of fines not exceeding 10 gulden (\$4.06).

Unions can hold public meetings, but only members and guests specially invited by cards bearing their names can take part in the proceedings. No person, whether a member or an auditor, can be allowed to attend with arms. It is the duty of the president to enforce this provision. Not less than 24 hours' notice of the time and place of all public meetings must be given to the authorities.

It is the duty of the presiding officer to see that all legal requirements are complied with during the meeting. He must issue orders to that effect, and if they are not obeyed must close the meeting.

The local authorities have the right to send a representative (*Abgeordneter*) to any meeting of a union. Such representative must be provided with a suitable place, and must be furnished with the name of a speaker or person presenting a proposal, whenever he so requests. He also has the power to require that a record be kept of any transaction that takes place or conclusion that is reached. The authorities can use their discretion in regard to the exercise of this power. The Government can also inspect such record at any time.

The foregoing provisions regarding public meetings and the sending of a delegate by the authorities do not apply to business meetings of the governing bodies of unions.

It is the duty of the authorities to prohibit any meeting of a union where the conditions of this law are not complied with, and, if necessary, to close such a meeting after it is assembled. The same action

must be taken by the delegate of the Government, or in his absence by the authorities, in the case of a properly convened meeting, when illegal proceedings take place in the meeting, when matters are taken up which are outside of the powers of the union as defined by its constitution, or when the meeting assumes a character threatening the public order.

Immediately upon a meeting being declared closed the persons present must leave the meeting place and disperse. If they do not do so the authorities can use force, if necessary, in compelling such action.

Petitions or addresses emanating from the union can not be presented by more than 10 persons.

A union can be dissolved if it passes resolutions or takes action in any direction forbidden by law or outside of its powers, and especially when it no longer fulfills all the conditions upon which its legal existence rests. The engaging in political action by a union not organized for that purpose, and thus not having fulfilled the special conditions required for the formation of such a union, would be ground for its dissolution. The dissolution is, in general, declared by the superior authorities (*Landesstelle*), from whose action an appeal can be taken within 60 days to the minister of the interior, or directly by the latter officer in the case of unions with branches in a number of countries. The lower authorities (*Unterbehörde*), however, can prohibit all action on the part of a union until the above-mentioned authorities decide the matter definitely.

The superior authorities must be notified by the retiring officers of any union voluntarily dissolved, and this fact must be published by them in the official journal. The same publication must also be made when a union is dissolved by the authorities. In this case information must be added showing the action taken in reference to the disposition of the possessions of the union.

The responsibility for the enforcement of this law belongs in general to the authorities having charge of the public safety (*Sicherheitsbehörde*) where such a service exists, otherwise to the political authorities of the district. In cases where the public order or security is dangerously threatened, however, any other authority having the care of the public safety can prohibit or close any meeting of a union convened or held contrary to the provisions of this law, or prohibit all action on the part of a union formed without complying with all legal requirements or taking illegal action after formation. Notice of such action must be immediately given to the ordinarily competent authorities.

A special chapter of this law relates to unions of a political character and imposes upon such unions various other conditions additional to the foregoing which apply to nonpolitical organizations. The purpose of these provisions is to bring such unions under a still more

rigid governmental supervision. An examination of them, however, falls without the scope of the present paper.

Infractions of the law of association, in so far as they are not provided for by the general penal law, can be punished by imprisonment for not more than 6 weeks or fines not exceeding 200 gulden (\$81.20) in amount. In the case of war or other disturbance the provisions of this law can be wholly or partially set aside, either generally or for a particular locality, by the Government.

The law concerning the right of assembly is very similar to that regarding the right to form permanent unions, and its provisions, therefore, need not be reproduced in detail. The Government retains the same rigid control over assemblies as over the meetings of unions. Notice of public meetings must be given to the authorities, who have the right to send delegates to see that the terms of the law are complied with. In case any illegal action is taken or the public order is threatened the meeting can be dissolved. Petitions or addresses can not be presented by more than 10 persons. While the Reichsrath or a provincial Landtag is in session no open-air public meeting can be held within 5 meilen (about 22½ miles) of the place where it is in session. The penalties for infractions of the law are the same as those in respect to the law concerning the right of association.

The temporary coalition on the part of employees for the purpose of raising wages or otherwise improving their conditions, or of employers for the purpose of lowering wages or making the conditions of their employees harder, is regulated by a special law enacted April 7, 1870. This law, which was passed chiefly as the result of the parliamentary demonstration of the Viennese workmen of the previous year, repeals the sections of the penal code of May 27, 1852, by which strikes and lockouts were made penal offenses. In their place it substituted the following provisions:

All coalitions on the part of employers or employees, as above described, as well as all agreements for the support of those persisting in such action, or the damage of those departing from such coalitions, and agreements by employers to raise the price of their wares to the damage of the general public, shall not be considered as contracts that can be enforced at law. Furthermore, whoever, for the purpose of accomplishing the objects of such a coalition or agreement, by means of threats or force, hinders or attempts to hinder employers or employees in the free exercise of their will regarding the giving or accepting of work, so far as such action does not incur a severer penalty under the penal code, shall be punished by imprisonment for from 8 days to 8 months.

The effect of this law is that by the repeal of the sections of the penal code relating to the subject strikes and lockouts are no longer penal offenses. On the other hand, agreements having that object in

view do not constitute contracts that can be enforced at law, and any attempt at coercion or the use of violence are made offenses punishable by imprisonment.

Before leaving this subject it should be noted that the Austrian Government, through the right possessed by the authorities of forcibly transporting persons without visible means of support to their native communes, is able effectively to intervene in industrial disputes and break up strikes, a power which it has not hesitated to use as occasion seemed to require.

TRADE GUILDS.

As in Germany, the effort to restore the old trade guilds (*Innungen*) to a position of power, and to make of them an essential factor in the industrial organization of the country, constitutes a distinctive and important feature of labor legislation in Austria. The old guilds, for many years declining in importance, had at the time of the enactment of the industrial code of 1859 reached the last stages of decay. This code, as one of its main purposes, attempted to restore the power of these associations. It made it obligatory upon employers to maintain their relations with their guilds, or to restore them when they had been discontinued.

Further efforts to reorganize the guilds so as to bring them more in harmony with changed industrial conditions, and to make of them efficient organizations, were made in the laws of March 15, 1883, and February 23, 1897. The law of 1883 is of especial importance. It established the guilds upon a new basis, which exists at the present time, as the law of 1897 introduced but slight modifications. The most important feature of the law of 1883 is that whereby the fundamental difference is recognized between the conditions in the large industrial establishments or factories and those in the handicraft trades. The true sphere of activity for the guilds was seen to be in bringing together for purposes of mutual benefit the small independent employers and artisans. The law, therefore, exempted the heads of factories from the obligation of membership in the guilds. The powers and duties of the guilds as regards the small employers and handicraftsmen, however, were considerably enlarged. It was hoped through the guilds to enable these classes better to hold their own against the growing power of the large establishments. The whole legislation regarding guilds must be looked at in this light, as an effort to bolster up the individual artisan and small employer, who seemed on the point of becoming extinguished by the large establishment. With this explanation a statement of the legal regulations now in force concerning guilds will be given.

The principle of obligatory guilds is unreservedly accepted. The law provides that whoever carries on a trade on his own account or as

a contractor becomes by virtue of his undertaking such trade a member (*Mitglieder*) of the guild for his industry and district, and must fulfill all the duties incident to such membership. At the same time all the employees become associates (*Angehörige*) of such guild. This obligation applies only to the handicraft trades, and thus does not relate to factory owners and factory employees.

It is the especial duty of members to pay the required membership fees, and proof must be made of such payment when they report their establishments to the proper authorities or apply for licenses to conduct any of the licensed trades. When the same person carries on several trades he must be a member of the guild for each one.

Wherever there is a guild embracing the persons carrying on the same or related trades on their own account or as contractors in the same or adjoining communes (*Gemeinde*), its organization must be maintained. When such action is necessary, however, it must revise its constitution and regulations so as to bring them in conformity with the present law. When this is done the new constitution must be approved by the provincial authorities (*Landesstelle*). The customary local designation—Gilden, Innungen, Gremien, etc.—may be retained.

In case such an organization is not in existence, and local conditions do not make it impracticable, it is the duty of the industrial authorities (*Gewerbebehörde*), upon the approval of the existing guild union and the chamber of commerce and industry, who must give the persons interested an opportunity to be heard, to create one.

If necessary, a single guild may include persons in several districts or in several related industries. The boundaries or jurisdiction of a guild may be at any time fixed or changed by the political authorities, upon the advice of the chamber of commerce and industry, and after the persons interested have been heard. Where a number of separate guilds have hitherto existed in the same industry, they may, upon mutual consent being obtained, be united in a single guild by order of the authorities, upon the advice of the chamber of commerce and industry. In the same way an organization including different trades may, where the conditions are such as to permit it, be divided into a number of different guilds.

In all cases where a doubt exists whether particular trades should be incorporated in a guild, or regarding the guild to which they should be assigned, the matter will be decided by the authorities (*Behörde*) after hearing the chamber of commerce and industry and the interested guilds.

The purpose of guilds is declared to be the fostering of the esprit de corps, the maintenance of the professional pride of their members and associates in their work, the establishment of sick and provident funds for the benefit of their members and associates, the advancement of the general interests of their trades through the creation of

credit institutions, warehouses for storing raw materials, and sales rooms, and the introduction of improved methods of production. In no case shall the entry upon or prosecution of a trade be restricted by these guilds in any way further than as specifically set forth in the present law.

More particularly the functions of guilds are (1) to maintain harmonious relations between employers and their employees, especially in respect to the organization of the labor force, the provision of guild shelters or lodges, and the securing of employment for persons out of work; (2) to provide for a satisfactory apprenticeship system, by the preparation of regulations, subject to the approval of the authorities, regarding the technical and moral instruction of apprentices, the length of their terms of service, examinations, etc., and the watching over the compliance with these regulations, the ratification of the certificates granted to them, and the determination of the conditions to be required for the keeping of apprentices, and the number of apprentices in proportion to the number of other employees; (3) to create arbitration committees for the adjustment of disputes between members of the guilds and their employees arising out of their labor, apprenticeship, and wage relations, and to create arbitration institutions for the adjustment of disputes between members of a guild, for which purpose several guilds may unite; (4) to further the creation of and themselves to establish and maintain trade schools; (5) to care for sick employees through the creation of new or the support of existing sick funds; (6) to care for sick apprentices, and (7) to prepare an annual report of the work of the guild which may be of use in the preparation of trade statistics. In addition to this regular report, guilds must, whenever called upon, furnish the chambers of commerce and industry of their districts information or advice upon particular subjects within their province. They must also especially give their opinion to the industrial authorities, whenever it is requested, concerning the granting of a trade certificate (*Gewerbeschein*) authorizing the prosecution of a handicraft trade, or a license to carry on a licensed trade, when especial qualifications are necessary, and when the evidence concerning the competence of the applicant does not seem to be sufficient. The guilds may also make recommendations upon their own initiative to the chambers of commerce and industry.

The guilds have the right to impose and collect entrance fees or incorporation dues from their members, and apprenticeship fees to be paid by the apprentices after the completion of their terms of service. The amount of these dues is fixed by the political authorities after obtaining a decision of the general assembly of the guild. These authorities must, within 3 months after this law goes into effect, officially revise the constitutions of the guilds with reference to the amount of the above-mentioned dues, and whenever they consider them too high reduce them in the manner provided.

Of the annual receipts from incorporation fees not more than three-fourths may be used for the current expenses of the guild, the remaining one-fourth being placed at interest. Of the receipts from apprenticeship fees not more than one-half may be used for general expenses. The other half must be used for the purpose of educating or otherwise benefiting the apprentices. If a further sum in addition to that derived as mentioned above or from interest on invested funds is needed by the guilds for the prosecution of their work, it must be raised as provided for by their constitutions. The guild dues, as well as fines imposed by them, are collected through the administrative authorities.

If a guild includes among its associate members a large number of workmen engaged in subordinate work in the industry, separate institutions, such as arbitration committees, workmen's assemblies, and sick funds, may be created for their special benefit.

Guilds of one or of several communes or districts, and of either the same or of different industries, may form a union for the better guarding of their interests. Whenever such a union embraces all the guilds of a political district, its managing committee will be considered as a labor council (*gewerblicher Beirat*) for the purpose of assisting the authorities, and its powers and duties are determined by a ministerial decree.

Each guild must prepare its own constitution, which must be in harmony with the present law and be submitted to the political authorities of the district for approval. This constitution must contain provisions regarding (1) the name, location, objects, and jurisdiction of the guild and its legal standing (*Evidenzhaltung*); (2) the rights and duties of the members; (3) the guild assemblies and the matters intrusted to them; (4) the sphere of activity of the executive board and the president; (5) the composition of the executive board and the business to be considered and transacted by it; (6) the requirements necessary for the validity of acts passed by the guild assembly and the executive board; (7) the manner of fixing and collecting dues; (8) the amount of the incorporation dues that will be required of new members; (9) the manner of administering the guild property; (10) the creation of the arbitration committee for the settlement of disputes between guild members, and (11) the imposition of fines.

To this constitution there must be attached as an integral part of it the constitution of the arbitration committee, the constitution of the workmen's assembly, and the constitution of the sick fund.

The affairs of a guild are managed by a guild assembly, an executive board, presided over by the president, and the organs provided for the management of the arbitration committee and the sick fund.

The guild assembly consists of all members who are eligible as voters or for election, and all members, including women, are so eligible, unless they fall in one of the following categories, viz.: (1) Per-

sons conducting a trade as long as they are excluded from the right of suffrage or eligibility for election in respect to communal elections on account of a conviction by a criminal court; (2) persons carrying on a trade, over whose estate a receiver has been appointed, during the continuance of the receivership; (3) persons carrying on a trade whose right to practice the trade has been withdrawn by the authorities, as long as such cancellation of the right is in force, and (4) persons carrying on a trade over whom a guardian has been appointed on account of their insanity or extravagance. These provisions regarding eligibility are equally applicable, according to circumstances, to the workmen's assemblies, the organization of which is hereafter described. The workmen, however, must be at least 18 years of age in order to be eligible as voters or for election.

In addition to the members duly qualified, as described in the preceding paragraph, each guild assembly must admit to its meetings from two to six delegates from the workmen's assembly. These delegates have the right to be heard, in order to present their desires and complaints, but can not vote.

The members will be summoned to the first general assembly by the industrial authorities. Subsequent meetings are called by the president of the guild by notices sent to each member, stating the matters that will be considered. The guild assembly must meet at least once a year, and whenever the president or executive board considers it necessary, or one-fourth of the members request it. Notice of all meetings must show the time and place of the meetings, and the commissioner or officer appointed by the industrial authorities to supervise guilds must be duly notified.

The first meeting of the assembly is presided over by the representative of the industrial authorities until the election of a president, after which the latter, or in his absence, the vice-president, will preside. The constitution must specify the number of members required to constitute a quorum for the transaction of business. If at any meeting such a quorum is not present a second meeting must be called, at which business may be transacted without regard to the number of members present. Resolutions are decided by a majority vote.

The powers and duties of the guild assembly are (1) to discuss, protect, and, as far as they accord with the purposes of the guild, advance the interests of the members of the guild; (2) to elect the executive board, the representative of the members on the arbitration committee, and the employer members of the executive committee, committee of supervision, and general assembly of the guild sick fund; (3) to verify and approve the reports concerning the financial operations of the guild, the annual budget, and the means employed for accumulating funds; (4) to organize the paid employees of the guild; (5) to take action regarding the creation or alteration of educational institutions,

and the reorganization of an existing sick fund, in order to bring it in conformity with the present law; (6) to take action regarding the length of apprenticeship terms and the nature of apprenticeship examinations; (7) to create or change guild institutions for educational, labor, or business purposes; (8) to adopt or amend the guild constitution, and to consider other important matters as specified in the constitution, and (9) to determine the use to be made of the guild fund. This fund, as well as the income that may be derived from it, must not be used for general guild purposes.

The executive board consists of the president, vice-president, and a guild committee, who, as a rule, hold office for 3 years, and are reeligible. The president and vice-president are elected by a majority vote of the guild assembly. If a majority vote of the members present is not obtained on the first ballot for 1 person, the 2 persons receiving the most votes can only be voted for on the second ballot. In case of a tie vote the matter is decided by lot. The industrial authorities must be informed of the persons elected. These authorities can annul the election if the persons selected were not eligible to the office or the election was illegal. When this is done a new election must be immediately ordered. The president (or in his absence the vice-president) represents the guild in all business with outside parties, signs papers, and generally exercises a supervision over the affairs of the guild.

The guild committee consists of a certain number of members and alternates, as provided by the constitution. They are elected by the guild assembly in such a way that in guilds comprising a number of trades the different trades are suitably represented. The constitution must provide to what extent the workingmen or associates shall be represented on the committee.

The executive board has general power in relation to all matters which are not expressly reserved to the general assembly, to the arbitration committee, or the other bodies that may be created by the guild.

The associates must organize a workingmen's assembly, which must be composed of all eligible associates belonging to the guild. The conditions of eligibility have already been given. Those associates, however, who have been out of employment for 6 weeks can not take part in the assembly, and they lose the right to exercise any functions that may have been intrusted to them. The powers, rights, and duties of this workingmen's assembly must be determined by a special constitution, which must be approved by the political authorities.

This body must elect a governing council, to consist of a chairman and from 2 to 6 members selected from among their number, for a term of 3 years. The industrial authorities must be informed of the person selected as chairman, and he can be rejected by them if his elec-

tion was illegal or if he was ineligible to that office. When his election is thus annulled a new election must be immediately ordered.

The executive board of the guild has the right to appoint from 2 to 6 members as representatives of the members to these assemblies. They have a deliberative voice in the proceedings, but can not vote. The industrial authorities must be informed of all meetings, and have the right to send a commissioner to see that the proceedings are lawfully conducted.

The only powers possessed by these assemblies are those expressly conferred upon them by law or the constitutions of their guilds. Their essential functions are: (1) To discuss and protect the interests of the workingmen who are associates of the guilds, so far as these interests do not conflict with the objects of the guild; (2) to select representatives to serve on the arbitration committee, and on the executive committee, the supervisory committee, and to the general assembly of the sick fund, and (3) the selection of delegates to the general assembly of the guild, as above described, and their own managing councils.

Reference has frequently been made to the fact that the creation of institutions of various kinds for the benefit of the members and associates and the advancement of the general interests of the trade constitute the most important duty of the guilds. The establishment of such institutions as loan funds, warehouses for raw materials, sales-rooms, members' aid and sick funds, as well as the official participation of the guilds in such work, can only be undertaken upon the favorable vote of three-fourths of the members present at the guild assembly at which the matter is discussed. Notice must also have been given in convoking the assembly that the matter would be discussed, and the action of the assembly must receive the approval of the industrial authorities. An assembly, moreover, can not take such action unless it is established by a count that there are present 50 per cent of the members in the case of guilds embracing not more than 100 members; 40 per cent, but not less than 50 members, in the case of guilds having over 100 but less than 500 members; 30 per cent, but not less than 200 members, in the case of guilds having over 500 but less than 1,000 members, and 20 per cent, but not less than 300 members, in the case of those having over 1,000 members.

In case a sufficient number of members is not obtained at the first meeting another meeting must be called for the consideration of the matter. The notice of the meeting must draw attention to the above requirements. At this meeting definite action may be taken regardless of the number of members present.

A guild may, in accordance with the above provisions and with the approval of the industrial authorities, create a special members' (masters') aid or sick fund, and, if created, may make membership in it

obligatory upon all members. It may also provide that members who discontinue their business may still remain members of the fund, and may also provide for the exemption of particular members from the obligations of membership upon grounds specifically set forth by the guild in its officially approved constitution. No member, however, can be compelled against his wish to take part in any business enterprises undertaken by the guild unless they are created for the public good.

Each guild must create a committee for the arbitration or settlement of disputes relating to labor conditions between members of the guild and their employees. The composition of this committee, the number of members, and the method of selecting its chairman and vice-chairman must be provided for by a special constitution, which must receive the approval of the political authorities of the district. This constitution must provide (1) that the arbitration committee shall consist of an equal number of members and associates, and this number must be sufficient to enable the committee properly to perform its duties. Only members and associates who are at least 24 years of age are eligible to serve on this committee. (2) That the chairman and vice-chairman shall be elected by the committee from among their number. They must be elected by a majority vote of all the members of the committee, and may be either members or associates. In case a majority vote can not be obtained, then both officers must be alternately selected from the member and associate classes. In this case the chairman and vice-chairman representing the member class must be elected by the associate members of the committee, and the chairman and vice-chairman representing the associate class by the member members of the committee.

An arbitration committee is only competent to act when both parties solicit its intervention in writing, or if one party makes such request and the other party, after being duly notified, voluntarily appears before the committee and consents to submit the case to it.

The committee can act either by way of conciliation or by trying the case and rendering a decision in much the same way as would a court. In order that a settlement by conciliation may be valid there must be present, besides the chairman or vice-chairman, two judges, one of whom must be a member and the other an associate of the guild. The agreement reached must be entered in the records of the committee, be signed by the parties, and if desired written copies be furnished to the parties.

If the matter goes to trial there must be present not less than 4 judges, 2 of whom must be guild members and 2 guild associates, in addition to the chairman or vice-chairman. The facts regarding the dispute must be clearly presented, and all available testimony be heard. The constitution of the committee must provide for the manner in which

the proceedings shall be conducted. It must specify whether and to what extent the associate members will receive a per diem from the guild.

The decisions of the committee may be executed in an administrative way (*Verwaltungswege*). Either party may appeal from the decision to an ordinary civil court within the 8 days following the announcement of the decision. If this is done the committee must be notified by the person taking such action.

All guilds must maintain employment registers for the purpose of facilitating the securing of workmen for the members or employment by the associates. Such guilds as possess their own journeymen's or associates' lodges must keep these registers at those places.

Each guild must create and maintain a sick fund, or join an existing one, for the insurance of its associates against sickness. This fund must have its own constitution which must conform to the legal requirements concerning guild sick funds, and be approved by the political authorities of the district. It must contain provisions regarding (1) the name, purpose, location, and jurisdiction of the fund; (2) the amount of the dues to be paid by the guild members and associates and the manner of their payment; (3) the conditions concerning the manner of payment and the amount of benefits to be paid; (4) the organization of an executive board, the extent of its powers, and the representation of the members upon it; (5) the creation of a supervisory commission as an adjunct to the board, and the manner of managing the fund's affairs; (6) the composition, method of convoking, manner of conducting the business, and the qualification of members of a general assembly; (7) the representation of the fund with respect to outside affairs and the forms to be used in performing legal acts; (8) the forms for the publications of the fund, and (9) the manner and conditions that must be observed for amending the constitution.

It is compulsory upon all guild members and associates, except apprentices, to contribute to the sick fund. The contributions required of members must not exceed one-half of that required of the associates, and the latter's contributions must not exceed 3 per cent of their wages.

The sick benefits to be paid to members of the fund (associates) must be, in the case of men, at least one-half, and in the case of women one-third, of the usual daily wages. In cases of long-continued illness these benefits must be paid, at least, for 13 weeks.

If the associates fail to pay the dues required of them, their employers must pay them, in which case they can deduct them from the former's wages. The employers must report to the sick fund the names of all persons employed by them who should belong to the fund. If they fail to do so they are responsible for the payment of all dues that should have been paid by such employees from the time of their employment.

The fund may pay for the care of an associate in a hospital for a period of 4 weeks, the cost thus entailed being deducted from the sick benefit to which the patient was entitled.

The accounts and management of the sick fund must be absolutely independent of the other aid funds of the guild. In no case shall the funds be used for any other purpose than the payment of the sick benefits. Guilds and guild members who have fulfilled all their statutory obligations regarding the payment of dues to the sick fund can not be held liable for any further payment in case the fund can not meet its obligations.

The governing bodies of a guild consist of the general assembly, the executive board, and the supervising commission. The sphere of activity of each of these bodies must be accurately defined by the constitution. All general powers, such as the adoption and amendments of the constitution, the approval of the annual reports, etc., are reserved to the general assembly. All three of these governing bodies are so organized that the guild members represent one-third of the members, or can cast one-third of the votes, and the associates represent the remaining two-thirds, or can cast two-thirds of the votes. The general assembly may consist of all the guild members and associates, or may be composed of delegates, the latter composition being obligatory when the fund embraces more than 300 members.

The industrial authorities have the right to examine the books and accounts of a sick fund at any time, and it is their duty to see that the provisions of the law are complied with.

The executive board of the guild has the power to punish members or associates who violate any of the guild regulations by reprimands or the imposition of fines not exceeding 10 gulden (\$4.06). The cases in which such punishment may be inflicted must be specified in the constitution.

The guilds must make an annual report to the industrial authorities showing the action taken by their general assemblies, the election of the executive board, and a properly prepared statement of all receipts and expenditures. The guilds are under the general supervision of the authorities who have the power to decide regarding complaints against the acts of the guild assemblies or executive boards after both parties are heard. They must appoint a special commissioner to have general charge or control over the guilds.

THE LABOR CONTRACT.

The general law regarding the making of labor contracts is that the parties can make such agreements as they desire, provided that no specific provision of law regulating labor is thereby broken. The code, however, goes further than this, and sets forth in considerable

detail the conditions that must be observed where no special contract is made, the notice that must be given in severing the labor contract, under what circumstances it can be terminated without notice, etc. These provisions apply only to industrial employees (*gewerbliche Hilfsarbeiter*), but this class is a very comprehensive one. It is defined to include all working people regularly employed in industrial establishments, regardless of age or sex, and specifically all journeymen, helpers, assistants in mercantile establishments, waiters, coachmen, drivers in wagon transportation work, all factory workers, apprentices, and such working people as are employed at inferior work in industry. It does not include persons employed in higher branches of work, usually receiving annual or monthly salaries, such as superintendents, technical experts, bookkeepers, cashiers, shipping clerks, draftsmen, chemists, etc. Without being absolutely exact, the definition can briefly be said to embrace wage-workers in contradistinction to those receiving regular salaries.

The general duties of employees are stated to be: To be faithful, obedient, and respectful toward their employers; to conduct themselves becomingly; to observe required or customary hours of labor; to perform industrial services intrusted to them according to the best of their ability; to maintain secrecy with regard to the manner in which industrial operations are prosecuted; to conduct themselves peaceably toward their fellow-workers or the members of the employer's family, and to treat the apprentices and children working under their supervision properly. Unless a special agreement is made to that effect, employees shall not be required to perform domestic labor not constituting a part of the industrial work.

Unless otherwise agreed upon, employment is presumed to be by the week, and a notice of 14 days must be given of intention to terminate the contract. Employees, however, who are paid by the piece or by the task may only leave when they have properly performed the work they have undertaken.

Before the expiration of an expressed or implied period of employment an employee may be summarily discharged without notice in the following cases: (1) If upon making the contract of employment he deceived his employer by presenting a false or counterfeited labor book or certificate, or withheld the fact that he was under an employment contract with another employer; (2) if he is found to be incompetent to perform the work which he contracted to do; (3) if he is addicted to drunkenness, notwithstanding repeated warnings; (4) if he is guilty of theft, embezzlement, or other criminal conduct which renders him unworthy of the confidence of his employer; (5) if he discloses a business or trade secret, or without the consent of his employer carries on another business relating to the trade; (6) if he leaves his work with-

out permission, or refuses to perform work assigned to him, grossly neglects his duties, or attempts to induce his fellow-workmen or members of the household to disobey or resist the employer, or to engage in disorderly conduct or immoral or illegal acts; (7) if he is guilty of gross insult, bodily injury, or threats of violence against his employer or a member of his household or his fellow-employees, or, notwithstanding previous warning, is careless in the handling of fire and light; (8) if he is afflicted with a loathsome disease or is disabled through his own fault, or is disabled, not through his fault, for a longer period at one time than 4 weeks, and (9) if he is imprisoned for more than 14 days.

The employee on his part may leave at any time without giving notice, in the following cases: (1) If he can not continue his work without evident injury to his health; (2) if the employer is guilty of violent illtreatment, or of gross insult toward him; (3) if the employer or a member of his family attempts to lead him into immoral acts or illegal transactions; (4) if the employer improperly withholds the wages agreed upon, or otherwise violates a material condition of the labor contract, and (5) if the employer is unable or refuses to pay the employee his wages.

The labor contract is dissolved *ipso facto* by the discontinuance of the business or the death of the employer. If an employee is prematurely dismissed as the result of the discontinuance of the business, or on account of the fault of the employer, or an accidental occurrence concerning the latter, he is entitled to an indemnification for loss on that account for the balance of the term of notice.

If, on the other hand, an employee prematurely leaves the service of his employer without legal justification, he becomes guilty of a violation of the industrial code, and is liable to punishment accordingly. The employer has the right, through the authorities, to compel the employee to return and serve out the balance of the term of notice agreed upon, and also to demand compensation for any damages he may have sustained.

The proprietor of an establishment who accepts the services of an employee knowing at the time that the latter has not legally severed his relations with a former employer, or who keeps such a person in his employ after he has been informed of such an illegal breaking of a contract, is guilty of a violation of the industrial code, and becomes jointly liable with the employee for the damages sustained by the former employer on account of such breach of contract by the employee. This same liability attaches to an employer who induces an employee to break his labor contract with another. In all such cases the former employer has the right to compel the employee to return and complete the unexpired term.

APPRENTICESHIP.

The regulations of the contract of apprenticeship constituted, as has been shown, one of the earliest forms of labor legislation. The important regulations of November 20, 1786, and June 11, 1842, have already been mentioned. The general labor code of 1859 regulated anew this matter without introducing any very important modifications. Subsequent changes were introduced by the laws of March 8, 1885, and February 23, 1897.

An apprentice is considered as anyone employed by the head of an industrial establishment for the particular purpose of acquiring a technical knowledge of the trade, whether or not an apprenticeship fee is agreed upon, or whether or not wages are paid to him for his services. Any person at the head of an industrial establishment or carrying on a trade on his own account may keep apprentices if he or his representative possesses the necessary technical knowledge to insure that the apprentices will receive an adequate industrial education and training. No person, however, may have minor apprentices who has been convicted of any crime or illegal conduct, whether for the purposes of gain or against public morals or otherwise, or who has forfeited his right to have apprentices. This forfeiture of the right to have apprentices must be declared, either permanently or for a fixed term, if the employer is guilty of a gross violation of his duty toward his apprentices or young persons in his employ, or if facts are known that make it improper for moral reasons for him to have apprentices or young persons in his employ, regardless of the penalties which may be imposed in virtue of the industrial or penal codes.

The right to have apprentices must especially be withdrawn—at first for a fixed time, and, in case of a repetition of the offense, permanently—from such employers who, after repeated notices, fail to fulfill their obligations toward their apprentices regarding the latter's scholastic industrial training. The right to have apprentices is only withdrawn after the guild to which the employer belongs has had an opportunity to be heard. The industrial authorities may in exceptional cases grant exemptions to particular persons from the prohibition to have apprentices, due to their failure to comply with the provisions regarding the latter's education, where it is believed that no harm or injury can result.

The engagement of an apprentice must be by an express contract, which must be definitely concluded at the end of the probationary period. This contract may be verbal or in writing. If verbal, it must be entered into before the executive board of the guild to which the employer belongs, or, when such an organization is not in existence, before the communal authorities. If the contract is in writing, it must be immediately transmitted to the guild or communal authorities.

Whether verbal or in writing, the guild or communal authorities must enter the contract in a register to be kept for that purpose.

The contract must contain (1) the name and age of the employer, the industry which he carries on, and the address of his place of business; (2) the name, age, and residence of the apprentice; (3) the name, residence, and occupation of his parent, guardian, or other legal representative; (4) the date and duration of the apprenticeship contract; (5) a clause stating that in addition to the other legal obligations of the parties the employer binds himself to instruct the apprentice in his trade, or to have it done by a competent representative, and the apprentice will be required to apply himself diligently to his trade; (6) clauses showing the conditions of the contract as regards apprenticeship fees or wages, board, lodging, and clothing, the duration of the apprenticeship term, and the guild fee for the certificate of indenture and release.

The more important features of the contract must be entered by the communal authorities in the labor book of the apprentice.

Except in the cases otherwise specially provided by law, the term of apprenticeship must be not less than 2 nor more than 4 years in nonfactory trades, and not more than 3 years in factory trades. When an apprentice has served a portion of his term with one employer and is regularly transferred to the service of another, the time so served must be included in the entire term.

The first 4 weeks of the apprenticeship term must be considered as a period of probation, during which the contract can be terminated by either party. This period may be extended, but must not be longer than 3 months.

The employer must interest himself in the industrial education of the apprentice, and must not deprive him of the time and opportunity necessary for this purpose by using him for other purposes. He or his representative must look after the morals and deportment of minor apprentices, both in and outside the workshop. He must require of the apprentice diligence, good manners, and the fulfillment of his religious duties. He must not illtreat the apprentice, and must protect him from illtreatment on the part of fellow-workmen or members of his household. He must see that the apprentice is not required to perform work, such as transporting burdens, etc., which is beyond his physical strength.

The employer or his representative is further required to allow apprentices who have not yet been absolved from the obligation to attend an industrial finishing school, or an institution of equal merit, the necessary time for attendance at the existing general industrial finishing schools (*gewerbliche Fortbildungsschulen*), as well as the technical finishing schools (*fachliche Fortbildungsschulen*), and also to see that they do attend such schools.

If an apprentice becomes sick or runs away, or any other important

event occurs, the employer must immediately notify the guild to which he belongs and the parent, guardian, or other representative of the apprentice.

The apprentice, on his part, must be obedient and faithful toward his employer, must conduct himself in an orderly manner, and must maintain secrecy regarding the work of his employer. He must fulfill his school obligations as above described. A minor apprentice may be subjected to paternal punishment by the employer under whose charge he lives. If an apprentice persistently neglects, through his own fault, to perform his school duties, the industrial authorities may, upon the report of the school authorities, extend the regular term of apprenticeship beyond the time specified in the contract. Such extension may also be made by the industrial authorities if the guild reports that the apprentice has failed to pass the apprenticeship examination prescribed by the constitution of the guild. In no case, however, can the extension be for more than 1 year.

The apprenticeship contract may be dissolved by the apprentice, upon giving 14 days' notice, if he shows, by means of a declaration through his legal representative, that he intends to change his occupation and take up an entirely different trade, or that on account of changes in the circumstances of his parents his services are needed by them for their support or for the management of their business or trade. The reasons for the severance of the apprenticeship contract must be recorded in the labor book of the apprentice.

Within a year after the dissolution of the apprenticeship the apprentice may not be employed in the same trade or in an analogous factory industry without the consent of his former employer. If this consent is refused the apprentice may appeal, through his legal representative, to the legally constituted tribunal for the settlement of disputes regarding wage conditions, which authority may, when it deems it proper, give the necessary consent.

In addition to the cases mentioned above the apprentice may, upon giving 14 days' notice, sever his contract, if he shows beyond a doubt before the proper arbitration tribunal that his employer has been guilty of continuous harsh and unjust treatment of him, even though this conduct may not be such ill treatment as would entitle him immediately to sever the contract. If the contract is severed on this account, the provision regarding the obtaining of the employer's consent before the apprentice may engage in the same trade does not apply.

The apprenticeship contract may be immediately broken without giving notice by the employer (1) if it is shown beyond a doubt that the apprentice is incapable of performing his duties; (2) if the apprentice is guilty of any gross offense, such as theft, improper or immoral conduct, the disclosing of business secrets, or any punishable conduct rendering him unworthy of his employer's confidence, gross neglect

of duty, carrying on another trade without the consent of his employer, etc.; (3) if the apprentice is afflicted with a loathsome disease or is prevented by sickness from performing his duties for over 3 months, and (4) if the apprentice is imprisoned for more than 1 month.

In the same way the apprentice may sever the contract without giving notice (1) if he can not continue in the work without injury to his health; (2) if his employer grossly neglects his duties towards him, attempts to lead him into immoral or unlawful conduct, abuses his right to inflict paternal punishment, or fails to protect him from ill treatment on the part of his fellow-workmen or members of his family; (3) if his employer is imprisoned for more than 1 month, or even for a shorter period, if no provision is made for his support; (4) if his employer, by way of punishment, has his right to carry on his trade temporarily suspended, and (5) if his employer removes with his business into another commune. In the last case the dissolution of the contract must take place within 2 months from the time of the removal.

The apprenticeship contract is ipso facto terminated by the death of the apprentice or the employer, by the retirement of the latter from the business followed, or by the inability of either of the parties to fulfill his contractual obligations. If the apprentice is connected with a guild, and his apprenticeship was terminated, through no fault of his own, before the expiration of the term, it is the duty of the guild to see that the apprentice is employed by another employer. It is also the duty of the guild to act in the place of the legal representative of the apprentice as regards the making of a declaration setting forth the grounds for breaking the contract when such declaration can not be obtained in time from such representative.

Upon the termination of the apprenticeship the employer must furnish the apprentice with a certificate (*Zeugnis*), showing the trade in which the apprenticeship was served, the conduct of the apprentice, and the technical education that he has received. In case the apprenticeship is regularly completed, and the employer is a member of a guild, this body must prepare a formal apprenticeship certificate (*Lehrbrief*). In both cases the material contents of the certificates must be entered in the labor book of the apprentice and be attested by the local police authorities.

PREVENTION OF ACCIDENTS AND PROTECTION OF HEALTH OF EMPLOYEES.

The industrial code only lays down in the most general terms the obligations that are placed upon employers in regard to the taking of measures for the protection of the lives and health of their employees.

Every employer must, at his own expense, provide and maintain all such arrangements regarding the workrooms, machinery, and appliances which, according to the nature of the industry, are necessary for

mentioned, no employee in a factory is allowed to work more than 11 hours in each 24 hours, exclusive of periods of rest. Exceptions to this rule, however, are numerous and important.

The first is that the ministers of commerce and the interior, acting together, after consultation with the chambers of commerce and industry, may designate by order those industries in which, on account of the nature of the work, workingmen may be employed an extra hour, or not more than 12 hours per day. This list must be revised every 3 years. In pursuance of this authorization the ministers issued a general order, dated May 27, 1885, which, in its present form, provides as follows: A 12-hour workday is permitted in establishments where the work must be carried on uninterruptedly, especially in iron and steel and other metal works, lime, cement, and tile factories, paper mills, flour mills, sugar factories, breweries, malt factories, distilleries, vinegar and liqueur factories, with the exception of those where the products are made cold, yeast and artificial ice factories, and establishments for the manufacture of chemical products. The permission, however, only extends to the work and employees directly concerned with the operations that must be continuous. To facilitate the changing of shifts, where Sunday work is permitted, a shift can be employed for as many as 18 hours not oftener than once a week, provided that a reserve shift of 12 hours or two 6-hour shifts are introduced once a week.

In addition to this permanent permission, special authorization to work longer hours can be obtained by individual establishments when accidents have interrupted their work or special reasons exist why this favor should be granted. This permission, the maximum duration of which is 3 weeks, is given in the first instance by the industrial authorities. If an extension is desired application must be made to the political authorities. Individual establishments may also work longer hours for not exceeding 3 days in a month by simply giving notice to the industrial authorities. In all cases overtime work must be specially paid for.

The conditions which have been given above do not apply to collateral work preceding or following the regular work, such as lighting up, heating the boilers, etc., provided that this work is not done by young persons.

During working hours employees must be allowed not less than $1\frac{1}{4}$ hours as intervals of rest, of which 1 hour must be for the midday meal. If the work period before or after this noon rest is not more than 5 hours in duration, the further allowance of time for rest may be dispensed with. These regulations apply to night work, and to small establishments as well as to factories.

When the circumstances of the case are such as to justify it, the minister of commerce, in conjunction with the minister of the interior,

after hearing the proper chambers of commerce and industry, may authorize reductions in the required periods of rest for particular classes of industries in which an interruption of work is impracticable. In accordance with this authorization a ministerial order has been issued modifying the general regulations concerning intervals of rest in 21 leading industries. This order is dated May 27, 1885, and may be summarized as follows:

In a first group of establishments, among which may be mentioned iron and steel works, brass and tin foundries, bell foundries, forges, wagon factories, lime furnaces, cement works, glass works, textile industries, bakeries and confectioneries, hotel keeping, etc., the interval of rest may be either at a determined hour or at variable times as the nature of the industry best permits.

In a second group, including flour and grist mills, breweries, malt factories, vinegar, sugar, and liqueur factories, artificial ice, gas works, commercial undertakings, barber shops, etc., the intervals of rest may be different for different groups of employees.

In a third group, including mechanical spinning and weaving works, flour and grist mills, breweries, malt factories, vinegar, liqueur, yeast, and artificial ice works, lighting by gas or oil, commercial enterprises, barber and hairdressing shops, and the work of tending machines and boilers, most, if not all of which are also included in the other two groups, the forenoon and afternoon intermissions may be dispensed with.

WORKINGMEN'S PASS BOOKS.

There exists in Austria a system requiring all workingmen to be provided with a personal identification book (*Arbeitsbuch*) that finds no counterpart in England or America. The possession of such a book, the form of which is determined by the ministers of commerce and the interior, is obligatory upon all industrial employees, and it is illegal for an employer to employ a workingman without such a book in due form.

This book must contain the name and address of the owner, the date and place of his birth, his religion, conjugal condition, and occupation. It must be signed by him and also be signed and sealed by the authority issuing it, and contain spaces for entries especially regarding the dates of entering and leaving employment. For young persons—that is, children under 16 years of age—it must also give the name and residence of the legal representative of the owner and the consent of such representative to the child engaging upon the work applied for or apprenticeship, and a statement regarding the school attendance and the education secured by the employee.

The labor books are furnished by the communal authorities of the place of residence of the applicant at cost price. When they are

issued to young persons the consent of the father or guardian must first be obtained, or, if this can not be done, that of the commune in which the person resides. An exact record of all books issued must be kept by the authorities.

The labor book must be presented to the employer by the workingman upon making application for employment. If the workingman is employed, his book is taken up by the employer and retained while he is in the latter's service. When he leaves it is returned after the dates of entering and leaving the service have been entered in it, and after it has been submitted to the president of the guild or the local authorities, in order that they may see that all the requirements of the law have been complied with. Any employer who, in violation of the law, fails promptly to surrender a labor book, or to make the required entries, or who makes improper entries or remarks, renders himself liable for damages to the employee. Whoever, also, counterfeits or copies a labor book, or knowingly permits the entry of false statements with reference to himself, or who uses the book of another, or loans his book to another for such a purpose, will be punished according to the provisions of the criminal code.

Workingmen employed in commercial establishments receive a certificate (*Arbeitsverzeichniss*) instead of a book, stating the nature and duration of their employment, and, if desired, the degree of skill and fidelity with which they have discharged their duties.

If desired by an employee regularly leaving the service of an employer, the latter must furnish him with a certificate (*Zeugniss*) setting forth the nature and duration of his employment and the conduct and degree of technical skill that he has displayed. The contents of this certificate may, if the employee so desires, be entered in the labor book and attested by the local police authorities. The refusal to furnish such a certificate or the willful making of a certificate which is untrue is a punishable offense.

EMPLOYMENT OF WOMEN AND CHILDREN.

The regulation of the employment of women and children constitutes one of the earliest and most important forms of protective labor legislation. The royal order of November 20, 1786, prohibited, except in cases of urgent necessity, the employment of children under 9 years of age in factories. The order, or decree, of June 11, 1842, made this restriction absolute, and further regulated the hours of labor of children over this age, and made it a condition of their employment that they should have had 3 years' schooling. The labor code of 1859 made the minimum age limit for employment 10 years, and regulated in considerable detail the conditions under which children under 16 years of age could be employed. These provisions were further modified by the law of March 8, 1885, amending the

labor code of 1859. The essential provisions of the law regulating the employment of women and children as now in force follows:

For the purpose of regulating the employment of children a distinction is made between factory operatives and other industrial workers subject to the provisions of the labor code. Certain conditions apply to all children comprehended under the code, and others, more strict in character, to factory workers only.

The regular employment of children under 12 years of age in industrial establishments is prohibited. Children 12 years of age, but less than 14 years, can be employed only when their labor is not detrimental to their health or physical development, and when such employment does not prevent their securing the amount of schooling required by law. The hours of labor of these children must not exceed 8 per day.

The minister of commerce, with the consent of the minister of the interior, can furthermore designate by order those industries of a dangerous or unhealthy character in which minors or women can not be employed at all, or only under certain specified conditions.

Women must not be regularly employed in industrial establishments during the 4 weeks immediately following their confinement.

Night work—that is, labor between the hours of 8 p. m. and 5 a. m.—is prohibited to children under 16 years of age. The minister of commerce in conjunction with the minister of the interior can, however, when climatic or other conditions are favorable, permit, by special order, certain exceptions to this rule. Advantage of this power has been taken by the ministers indicated by the promulgation of the order of May 27, 1885, the provisions of which follow:

In scythe works boys from 14 to 16 years of age who assist in work at the fires (*Feuerarbeiten*) may be employed at night or in the early hours of the morning, provided there are proper alternate day and night shifts.

In silk spinning mills in which, on account of climatic conditions, work begins before 5 a. m. and continues after 8 p. m. during June and July, and when a longer period of rest is allowed at noon, children from 14 to 16 years of age may be employed at night, provided the maximum working day does not exceed the daily limit prescribed by law.

In hotels and restaurants boys from 14 to 16 years of age may be employed as waiters, etc., after 8 p. m., but not later than midnight.

In wheat bread bakeries (*Weissbäckereien*), in which there is but one baking every 24 hours, boys from 14 to 16 years of age may be employed as apprentices at table work (*Tafelarbeit*) for not more than 4 successive hours between 8 p. m. and 5 a. m. The employer must in such cases indicate in the shop regulations, which must be conspicuously posted in the workrooms, the hours when such labor will be performed.

Persons or firms employing children under 16 years of age must keep a special register showing the names, addresses, and ages of such

children, the names and addresses of their parents or guardians, and the dates when the children enter and leave their service. This record must be open at all times to the inspection of the industrial authorities.

Considering now the regulations relating specifically to factories, the law provides that children under 14 years of age can not be regularly employed, and that those under 16 years of age can only be employed upon light work that is not detrimental to their health or bodily development, and that neither they nor women can be employed at night. As an exception to this general rule, however, the minister of commerce in conjunction with the minister of the interior can after consultation with the chambers of commerce, indicate certain categories of factories in which, on account of the necessity for prosecuting the work without interruption, the employment of children and women at night may be permitted. The total number of hours that they can be allowed to work in any one day can not exceed the legal workday of 11 hours. In pursuance of this authorization, an order was issued dated May 27, 1885. Following is a summary of its provisions:

In iron works boys between the ages of 14 and 16 years of age who work in regular shift-changing branches (smelting furnaces, coke ovens, rolling mills) as puddlers' helpers, greasers, or oilers, wheelers, or general helpers, etc., may be employed at night.

In glass works boys from 14 to 16 years of age may be employed at night in the work of opening and closing the forms in which the glass is blown, in the carrying away of the blown articles to the cooling ovens, and in similar light labor.

In bed feather cleaning and preparing women over 16 years of age may be employed at night.

In machine lace works women over 16 years of age may be employed at night in putting bobbins in the carriages when the work is organized in shifts.

In the manufacture of fez women over 16 years of age may be employed until 10 p. m., provided that the 11-hour working day is not exceeded.

In paper mills children from 14 to 16 years of age and women may be employed at night as far as they are engaged in continuous operations.

In sugar factories and refineries children from 14 to 16 years of age and women may be employed at night as far as they are engaged in continuous operations.

In preserving factories children from 14 to 16 years of age and women may be employed at night when the operations in which they are engaged can not be postponed without danger that the articles will be spoiled.

Generally, when overtime work is permitted on account of accidents, press of work, etc., with the result that the hours of labor extend into the night, children from 14 to 16 years of age and women may be employed in such work notwithstanding that it is at night.

The law further provides that all children under 18 years of age must be allowed time in which to attend existing industrial evening

and Sunday schools (preparatory, finishing, apprenticeship, and technical). A provision of law, which, however, is not embraced in the industrial code, furthermore provides that where children employed in factories and large establishments are thereby prevented from attending Government schools, that their employers, either alone or by uniting forces, shall establish schools of their own for the instruction of the employees in the regular branches taught in the public schools. In such schools at least 12 hours' instruction must be given weekly, and these hours must fall between 7 a. m. and 6 p. m., exclusive of the dinner hour at noon.

SUNDAY LABOR.

The labor code of 1859 restricted Sunday work within comparatively narrow limits. These provisions have since been superseded by the special Sunday labor law of January 16, 1895. The new law in the main reenacted the provisions already in force, but introduced a few changes. A brief summary of the existing law follows.

The general rule is first stated that no industrial or commercial work shall be performed on Sunday or on holidays unless special permission has been obtained from the Government. This cessation of work must begin not later than 6 o'clock in the morning and continue uninterruptedly for at least 24 hours. The remainder of the act is devoted to a specification of the cases in which permission to work on Sunday may be granted.

The first general exception is that of such necessary work as (1) the cleaning and maintenance of the interior of establishments and such preparatory work as can not be done during week days without materially interfering with the lives or health of the employees; (2) guarding the plant; (3) work required in making the annual inventory; (4) the performance of work of a temporary nature which does not admit of delay and which must be undertaken either for reasons of public safety, as when ordered by the police, or in cases of emergency, and (5) personal work performed by the employer without assistance and in a private manner.

In all but case (5) the manager making use of the foregoing exceptions must keep a written record showing for each Sunday separately the names of the persons thus employed and the place, character, and duration of their work. When an employer desires the privileges noted under (3) and (4), he must, furthermore, before beginning such work, report to the industrial authorities, unless the necessity for such work only becomes evident on a Sunday, in which case he must report immediately after the ending of such work. In both cases the industrial authorities must investigate in order to see if the work is justified according to legal requirements.

In all cases of Sunday labor, except those relating to the taking of

an annual inventory or the personal work of the employer, where workmen are prevented from attending divine service they must be given an opportunity to do so on the following Sunday. If the work lasts more than 3 hours, the persons employed must be given 24 hours' rest on the following Sunday, or, if this is not practicable, a week day, or 6 hours' rest on 2 week days.

Secondly, permission may, by order, be given by the minister of commerce, acting in conjunction with such other ministers as may be interested, for the regular operation on Sunday of special categories of industries which, on account of their nature, must be prosecuted without interruption or in which a postponement of the work is impracticable, or which must be carried on on Sunday in order to satisfy important needs of the public. When Sunday work is authorized in accordance with the foregoing in establishments in which continuous work is required, such authorization must relate only to such continuous work, and in other industries only to such operations as are expressly permitted in the order, and other labor, such as preparatory or accessory work, must cease. The order must in all cases apply uniformly to all establishments in the same category, and the workmen whose employment is thus permitted on Sunday must be given the same hours of rest during week days as are provided for in the preceding paragraph. The provisions of the order regarding Sunday labor, as far as they apply, must be included in the shop regulations which each industrial establishment is required to post in the work-rooms.

The regulation of Sunday work in those productive establishments, the operation of which on that day may be deemed necessary in order to satisfy the daily needs of the public, may be transferred by the ministers to the political authorities of the provinces or states (*Landesbehörde*). This provision applies in particular to those cases where local customs may make such action desirable. Bukowina and Galicia are specially empowered by the law to permit productive industries to be operated on Sunday, on condition that all the employees of such establishments, on account of their religious beliefs, regularly observe some other day of the week as a day of rest and do not work publicly on Sunday.

In commercial establishments Sunday work is permitted for not more than 6 hours each day. In certain special cases, however, as will be seen below, this period can be extended. The determination of the hours during which these establishments may remain open on Sunday is intrusted to the provincial authorities, who, before taking action, must give the communes and guilds interested an opportunity to be heard. The guilds are specifically given the power of transmitting to the political authorities, with a view to their being sent to the industrial authorities, recommendations adopted by their general assemblies for the restriction of Sunday labor in their industries.

When business is unusually active, as immediately before Christmas and other holidays, work for not more than 10 hours may be permitted on Sunday by the provincial authorities after hearing the interested guilds and communes. In the same way permission to remain open 10 hours on Sunday may also be granted to certain kinds of commercial establishments for the whole year, or during certain seasons or periods in those cases where local customs require it; as, for example, the sale of articles of religious devotion in places to which pilgrims resort, or the sale of food and refreshments in railway stations, excursion places, etc.

Finally, the political authorities may permit Sunday work during the year or during certain determined seasons for not exceeding 8 hours in commercial establishments in localities having a population of less than 6,000, to which the surrounding inhabitants resort for the purchase of articles to satisfy their domestic needs.

The hours that are fixed during which commercial establishments may remain open on Sunday need not be the same for different trades or for different localities. During the hours when Sunday labor is not permitted the entrances to the establishments must be locked. The restrictions on the right of commercial establishments to be open on Sunday apply to places where the proprietors have no employees, and also to the sales departments of productive enterprises in so far as they are not already regulated by orders relating to such establishments generally.

Employees must be granted the time necessary for attendance upon divine service on Sunday morning in accordance with their religious beliefs. When no uninterrupted rest can be guaranteed to employees on Sunday from noon until the opening of the establishment on the next day, the employer must so organize his labor force that each employee will be free every other Sunday, or when this is not practicable, will have a half day's rest from work upon some week day.

The orders issued by the provinces, in virtue of the power conferred upon them to regulate commercial work on Sunday, must be reported at the end of each quarter to the minister of commerce, who, acting in conjunction with the other ministers who may be interested, may make changes in them. In virtue of the power conferred upon him, as above noted, the minister of commerce, acting in conjunction with the other interested ministers, issued an important order April 24, 1895, specifying the exceptions from the general prohibition of Sunday work permitted in the case of a large number of industries which, on account of the nature of the work performed, must be prosecuted without interruption, or which must be operated in order to satisfy important public needs. This order has received slight amendments from time to time. The different provinces have also issued a large number of orders concerning Sunday work in commercial establishments in their districts.

FACTORY AND WORKSHOP RULES.

The general code contains numerous regulations concerning the posting of notices where establishments are subjected to the provisions of a special order, employ children, etc. In addition to these special notices the law requires that in every factory or industrial undertaking in which 20 or more persons are employed a notice, signed by the employer, must be posted where it can easily be seen by all the employees, setting forth the time at which it enters into force and the following information: The special classes and kinds of employment of women and children; the manner in which the children are to receive the prescribed school instruction; the length of the work day, the times of beginning and ending work, and the periods allowed for rest; the frequency and times of payment of wages; the duties and obligations of overseers; the treatment of workingmen in cases of accident or sickness; the regular money fines that will be inflicted for infractions of the factory rules, and what use will be made of them, as well as all other deductions from wages; and the notices required in severing the labor contract, and the circumstances under which employees will be immediately discharged.

Two copies of these regulations must be sent to the industrial authorities at least 8 days before they are posted. One of these copies, if the regulations are found to conform to all legal requirements, is retained by the authorities and the other is indorsed and returned to the employer from whom it was received.

Another section provides that a record must be kept of all fines and of what use is made of them, which must at all times be open to the inspection of the industrial authorities and the workingmen. In case a workingman thinks that injustice has been done, either regarding the imposition or the application of a fine, he can appeal the matter to the industrial authorities for adjustment.

INSPECTION OF FACTORIES.

A system of factory inspection in the modern sense of the term was first created in Austria by virtue of the law of June 17, 1883. This law provides for a chief factory inspector and deputy inspectors. The number of the latter is not fixed by law, but is left to the discretion of the administration. Nine were at first appointed. This number was subsequently increased to 12, and in 1897 to 40, inclusive of the chief inspector.

These inspectors are appointed by the ministers of commerce and the interior acting in conjunction, and each one is generally assigned to one or more districts of a province (*Land*). These inspectors are under the political authorities of the province in whose jurisdiction

their district lies. The central government, however, can except the supervision of particular classes of establishments from the control of the ordinary inspectors and assign them to special officers. Special inspectors have thus been appointed for the inspection of inland water transportation and shipbuilding, and, in virtue of a law enacted August 27, 1892, a special inspector has been appointed for public works in Vienna. By virtue of agreements with the other ministers interested, the imperial tobacco factories, prison work in imperial prisons, and private powder works have also been brought under the inspection service.

The duties of the inspectors as regards the inspection of factories and the enforcement of the labor laws are grouped under the following four heads: (1) The enforcement of the provisions of the law requiring employers to take precautions for the protection of the health and lives of employees, not only in the workshops proper, but in the workingmen's dwellings provided by the employer; and in the grounds surrounding the buildings; (2) the enforcement of regulations concerning the character of employment, intervals of rest, hours of labor, etc.; (3) the enforcement of regulations concerning the keeping of the registers of employees, the posting of working rules, wage payments, and laborers' certificates, and (4) the supervision of regulations concerning the technical instruction of apprentices.

In the performance of these duties the inspectors are given the authority to enter all industrial establishments and all workingmen's homes belonging to the establishments at any time, except that at night the factories may only be entered while they are in operation. The proprietor or his agent may accompany the inspector while he is making his inspection. The inspectors have the right to question any person employed in the establishment, alone if necessary, including the proprietor or his agent. The inspector should, as far as possible, avoid interrupting the work in any way. The proprietor or his agent must show, whenever required by the inspector, the permit granted for the construction or operation of his establishment, and the accompanying plans and drawings.

If any of the persons mentioned above refuses to allow the inspector to enter the buildings or places to which he has the legal right of access, or refuses to answer proper questions, or attempts to induce others to make false statements, or refuses to show the permit, plans, and drawings of the establishment, he may be punished according to the provisions of the industrial code, if he does not lay himself liable to punishment according to the criminal code.

In case the inspectors find that the laws are not being complied with in any respect, they must order such compliance, and if the employers then fail to comply, they must report the matter to the industrial authorities (*Gewerbebehörde*), who will enforce obedience.

When requested by an inspector, the industrial authorities have the right to employ physicians, chemists, or other experts to make the necessary examinations in cases where it is believed that the health of employees is endangered by the manner of their employment or the system of work in force. If the alleged evil is shown to exist, the expense of this examination must be borne by the proprietor of the establishment at fault.

Inspectors while in the performance of their duties have the status of State officers. They must possess a technical knowledge of industrial matters, be able to speak the languages of their districts, and seek to perfect themselves for the performance of their duties in every possible way. They must maintain secrecy regarding the conditions and methods of work in the nature of trade secrets which come to their knowledge. A violation of this provision renders them liable to imprisonment for from 3 months to 2 years in so far as the general criminal code does not provide for a severer penalty. They can not operate any factory or other industrial establishment either personally or through an agent, nor be connected in any manner with such an establishment, nor render any services, such as those of manager, expert, superintendent, etc. It is illegal for them to accept any compensation of any kind for their official services either from the employer or employees, or even acts of hospitality, and they must not be charged with any duties foreign to their sphere of action, and especially must their services not be used in any way in the financial operations of the Government.

Finally, the law contains an interesting provision directing that the inspectors, in the execution of their duties, must make it an object, by exercising their control in a kindly manner, to insure the beneficial operation of the law with regard to the employees, tactfully to aid the directors of industrial enterprises in the fulfillment of the legal requirements, to mediate between the employers and their employees and attempt to adjust their differences upon an equitable basis, and, generally, to gain the confidence of the employers as well as the employees, so as to place themselves in a position where they can assist in maintaining amicable relations between the two.

The inspectors must also assist the industrial authorities to the extent of their powers in the administration of the industrial code, by acting as supervisory, consultative, and technical officers. They may thus be required to give their opinion regarding requests for the approval of plans for industrial establishments so far as regards the safety and health of the employees.

The inspectors must make comprehensive annual reports, giving the results of their work and observations, to the minister of commerce, through the provincial authorities (*Landesbehörde*). These reports must also contain information concerning accidents to employees occur-

ring in the course of their work, and their causes, and recommendations regarding legislation or administrative orders in the interests of the industries over which they exercise control and their employees. These reports, properly compiled, must be placed before the Reichsrat annually.

As an aid to the enforcement of the industrial code, the law requires that in every industrial establishment a register must be kept in book form, showing for each employee his full name and age, the commune in which he has his home, the commune which furnished him with his labor book, the date of his employment in the establishment, the name of his last previous employer, the nature of the work upon which he is employed, the sick fund to which he belongs, and the date when he leaves the establishment. This register must at all times be open to the inspection of the authorities, and must preserve a record for a period of at least 3 years prior to the date of the last entry.

PAYMENT OF WAGES: TRUCK SYSTEM.

The evils of the truck system were recognized as early as 1791, and prohibited by a law enacted in that year. This prohibition has been continued in subsequent legislation. The provisions of the law now in force are reproduced in the paragraphs following. With the exceptions to be noted, employers must pay the wages of their employees in cash. They may, however, furnish and reckon as a part of wages dwelling accommodations, fuel, the use of ground, medicines and medical aid, and goods manufactured in their establishments, provided that an arrangement to that effect has been previously agreed upon by the parties. The furnishing of food or regular board as a part of the employee's remuneration can also be agreed upon, provided such food or board is furnished at not exceeding cost price.

In no case shall employees be required to trade at a particular store, nor shall the employer supply his employees with goods other than those above specified, and especially no beverages, upon credit, to be afterwards settled for through a deduction from the latter's wages. Wages also must not be paid in any place where intoxicating liquors are sold.

The foregoing provisions apply not only to employees working inside of establishments, but to those performing services outside or where the work is wholly or in part performed in the homes of the workingmen. They also apply to members of the families of employees, to managers, overseers, and agents of the employers, as well as to other directors of industrial enterprises in whose business any one of the persons above mentioned is directly or indirectly concerned.

All contracts in violation of the regulations concerning the payment of wages will be considered as null and void. Employees whose

claims are settled contrary to the provisions of this law may at any time demand full payment in cash for their services, without regard to what they may have received in kind. In such cases, however, any goods they have received in excess of their stipulated wages remaining undisposed of, or from the use of which they have profited, or their value, must be turned over to the sick fund of the establishment or of the guild of which the employer is a member, or, when there is no such fund, to the communal sick fund of the district in which the establishment is located. The employer is also deprived of all right of enforcing the collection of any claims that he may have against workingmen for goods furnished on credit in violation of this law, either by suing for them, or charging them up against wages, or in any other way. Such claims go to the credit of the sick funds above mentioned and may be collected by them.

ARBITRATION TRIBUNALS.

Provision has been made in various ways for the conciliation or arbitration of labor disputes in Austria. The inspectors of factories can act as mediators in certain classes of cases. The law, at least, expressly states that part of their duties are to hear complaints, give advice, and attempt to prevent open rupture between employers and their workingmen. The guilds, also, as has been shown, are required to create arbitration committees, with the function of adjusting disputes between guild members or guild members and their employees.

In addition to these provisions the effort was made by the law of May 14, 1869, to promote the establishment of arbitration tribunals of more general and extensive powers, after the model of the French councils of prudhommes. This law, however, on account of its non-obligatory character and for other reasons, proved to be an ineffective measure, and the results achieved under its provisions were unimportant. With the development of production upon a large scale, and the increasing severity of industrial disturbances, the need for effective arbitration courts became more acutely felt. After a discussion and agitation extending over a considerable number of years, the law of 1869 was repealed, and in its place was enacted the law of November 27, 1896, now in force. A summary of the provisions of this important law follows:

Special arbitration courts for the settlement of industrial disputes between employers and their employees and between employees in the same establishment will be created whenever deemed desirable by the order of the minister of justice, acting in conjunction with the other ministers who are concerned with the branches of industry to which the courts will specially relate. In general these courts will be created upon the recommendation of the provincial councils (*Land-*

tage). The law, however, further provides that not only the provincial councils, but the local authorities, boards of trade and industry, factory inspectors and all kinds of industrial organizations and unions can petition for their creation. In the case of all such requests an inquiry will be made concerning the local conditions and needs and decision will be made by the minister of justice in accordance with the results of this investigation. In all places where industrial courts had been created by virtue of the old law of 1869 these bodies must be reorganized so as to conform to the requirements of the new law.

The order by which an industrial court is created determines the district to which it relates and the industries over which its jurisdiction will extend. The district may correspond with a commune, may embrace only a part of a commune, or may comprise a number of communes. As regards the industries to which it relates, a court can be created for particular categories or for all classes of industrial establishments in the district.

In all cases the jurisdiction of industrial courts excludes that of the political authorities, the ordinary courts, and existing industrial courts; and parties to a dispute can not renounce this jurisdiction by mutual agreement. The jurisdiction and powers of the arbitration committees of the guilds, however, remain undisturbed.

As regards the class of subjects that may be brought before these courts, the law declares that they shall be competent to decide, without reference to the value of the matters in dispute, all questions relating to (1) disputes concerning wages; (2) disputes concerning the making, continuance, and breaking of labor or apprenticeship contracts; (3) disputes concerning the conditions under which labor is performed and claims for damages that may arise in connection therewith, and especially in respect to deductions from wages and conventional fines that have been agreed upon; (4) disputes concerning the deliverance or contents of labor books and certificates, and especially concerning claims for damages by employees on account of the books not being delivered at the proper time, the refusal of the employer to make the required entries, or the insertion of improper entries or remarks; (5) disputes concerning membership in the pension or other aid funds in so far as the arbitration tribunals of the accident insurance institutions or of the sick funds or other statutory arbitration tribunals do not have jurisdiction; (6) disputes concerning the giving of notice of intention to leave, vacating, and the rent of dwellings the use of which by the employees is authorized by the employer either with or without remuneration, and (7) disputes concerning claims which may arise between employees in the same establishment who have undertaken work in common.

The following classes of persons are considered as workingmen as understood by this law: (1) Superintendents and foremen; (2) all per-

sons, including day-laborers, working as employees in industrial establishments (*alle im gewerblichen Betriebe beschäftigten Hilfsarbeiter*); (3) all persons who work for wages outside of the establishment upon the raw materials or partly manufactured articles for the employer, and (4) all persons employed in mercantile services in commerce (*bei Handelsgewerben alle zu kaufmännischen Diensten verwendeten Personen*).

Each industrial court will be composed of a president, and, if necessary, a substitute, and not less than 10 associates representing the employers and 10 associates representing the employees, and the necessary number of substitutes. The president and his substitute are appointed by the minister of justice and must be men having the qualifications necessary for appointment to a judgeship. The associates are elected half by the employers and half by the workingmen organized as separate electoral bodies. These bodies in each case elect from among their own number.

Employer-electors consist of all owners of establishments in the trades for which the industrial court is created within the district of the court. Where an establishment is operated by a manager or is leased to another person, the manager or lessee, instead of the owner, will be deemed to be the elector. Women can vote by giving a power of attorney. Public trade associations, joint stock and similar companies, corporations, and unions can exercise their right to vote through a duly authorized representative. State establishments can in like manner be represented by properly designated officials.

Workingmen-electors consist of all workingmen and working women employed in the industries over which the industrial court has jurisdiction and situated within the district of the latter who have completed their twentieth year, and who, during at least the previous year, have been employed in the country. Apprentices do not have the right to vote. Equally excluded from the right to vote are persons placed under a guardian or whose property has been turned over to creditors, so long as this condition of affairs exists, or who are charged with, on trial for, or undergoing punishment on account of, a criminal offense, or who, as a result of a judgment according to law, are excluded from the suffrage in respect to the communal council.

Candidates for election must be males 30 years old, possessing the right of suffrage as above described, Austrian citizens, and enjoying their full rights. In State industries and in transportation and factory undertakings the officials in the establishments concerned are eligible for election. Those persons, however, are excluded from election who, according to existing law, are ineligible to serve on a court as the result of a criminal judgment.

An associate or substitute can decline election or resign after having entered office (1) if he is over 60 years old; (2) if physically incapacitated for performing the duties of the office; (3) if he has just served

a term as associate, and (4) if he does not live within the district over which the court has jurisdiction. In cases of doubt the civil court of the district in which the arbitration court is situated will decide as to whether the withdrawal is justifiable or not.

Associates and their alternates are elected for 4 years. After the first 2 years, however, one-half of their number, consisting of equal numbers of employer and employee representatives, as determined by lot, will retire from office, and a special election will be held to fill their places. Thereafter elections will be held every 2 years for the election of half the number of associates and alternates. The civil court of first instance can also order special elections to fill vacancies that may have been caused in any way when it deems such action desirable.

In order to provide for the contingency of either employers or employees collectively abstaining from taking part in the election of these members in order to prevent the constitution of a court, the law provides that when two attempts without success have been made to secure through elections associates from either of the electoral bodies, the political authorities shall transmit to the civil court of first instance a list of those persons who are held to be the most competent and worthy to serve as associates. From this list the court will select names of three times as many as are needed to fill the vacancies, and a selection of the necessary number will then be made by lot. It is the duty of the communes to prepare the lists of electors for both the employers and employees. In all cases where the right of a person to figure upon one of these lists is questioned a decision will be made by the industrial authorities, from whose action an appeal can be taken to the provincial authorities (*Landesstelle*).

The elections will be held under the supervision of the industrial authorities. Votes must be cast by the electors in person. The candidates receiving an absolute majority of the ballots cast are declared elected. In case of a tie vote a decision is reached by drawing lots. Administrative orders are promulgated determining the details of the electoral proceedings, the verification of the electoral lists, etc. When the jurisdiction of an industrial court relates to a number of different branches of industries, it can be provided that the election of associates shall be by industries, in order that each branch may have its proper number of representatives.

The names and addresses of all members of industrial courts must be publicly made known. Associates and their alternates receive no indemnity other than the reimbursement of their actual expenses, with the exception that the associates chosen from among the workmen receive an indemnity for their loss of time for each day upon which they are engaged in court work, the amount of which is determined by special regulations. It is the duty of the communes in which the

courts are situated to provide and care for the quarters necessary for the courts, and to look after their other requirements. All other expenses will be defrayed by the State. The methods of work, division of duties, etc., of the courts will be determined by the president. The president and his substitutes are under the supervision of the civil courts of their districts.

Associates who, without good reasons, fail to attend the meetings of the court, or do not attend at the proper time, or are wanting in other respects in the performance of their duties, may be punished by the president by fines not exceeding 200 gulden (\$81.20) in amount for each delinquency. The civil court of first instance can dismiss an associate whenever any circumstance arises or becomes known which renders the latter ineligible for his office, or whenever he is guilty of gross dereliction of duty, and especially when, in spite of the repeated imposition of fines, he absents himself from the meetings of the court. The civil court will also fix the time during which his incapacity to be reelected will continue.

An associate or alternate must be removed from office by the civil court if he ceases to be an employer in an undertaking in virtue of which he was elected, or if he ceases to be an employee through entrance into another calling permanently removing him from the employee class, or if for 3 months he has engaged in a business over which the court does not have jurisdiction. In all such cases the associates also have the right voluntarily to resign from their offices. An appeal from the action of the civil court in respect to the removal of an associate can be taken to the superior court (*Oberlandesgericht*).

For the purpose of transacting business and rendering decisions industrial courts will consist of their presidents or their alternates and two associates, one of whom must be an employer and the other an employee representative. The manner in which associates or their alternates will be summoned to the meetings by the president will be fixed by regulations for that purpose. An industrial court can be divided into permanent sections according to particular trades or allied branches of industry. In the case of those courts whose jurisdiction extends to commercial enterprises a special section must be formed for such undertakings, and associates for this section must be specially elected from electoral bodies consisting of persons concerned with such enterprises.

Where the methods of procedure are not fixed by the present law, the industrial courts will follow the practice of the civil courts in reference to minor matters. In the transaction of business concerning industrial disputes enumerated in the section setting forth the matters over which the industrial courts have jurisdiction, that court will have jurisdiction in whose district the establishment in which the dispute exists is situated. Where the employees who are parties to a dispute work outside of the establishment, that court will have jurisdiction

in whose district the work is performed or the wages are paid. It is the duty of the industrial courts to guard their jurisdictional rights. When the jurisdiction of an industrial court as regards the subject matter of a dispute has been affirmed by the civil court, or vice versa, the decision is binding upon the court declared to be competent.

Members of an industrial court are disqualified from taking part in proceedings in reference to matters in which they, their wives, or other persons closely related to them are interested, or where there are any circumstances that might prejudice their judgment. Parties to a dispute can be represented by an agent, foreman, or other employee when the latter is provided with the proper power of attorney. Representation by a fellow-employee is permitted where it is made evident that the party himself is hindered from appearing.

Industrial courts must, as necessity demands, establish and make known the days and hours when complainants and defendants can appear, without formally being summoned, in order to submit their differences. In general the first hearing of a dispute must be had within 3 days after a complaint has been entered. The first hearing can be had by the president, without summoning the associates, for the purpose of attempting an adjustment of the difficulty without a trial or for considering matters relating to the competence of the court. If the parties agree to forego their right of having the associates summoned, the matter can be forthwith decided. In all cases where an agreement is not reached at the first hearing, the matter must be brought before the court, and the president must inform the associates of what took place during the first meeting.

The judgment of an industrial court as regards matters of fact is final when the amount involved does not equal 50 gulden (\$20.30). When the amount involved is 50 gulden (\$20.30) or over, or an error of law or procedure is alleged, an appeal can be taken to the civil court of the district. In considering these appeals the civil court will be assisted by two associates of the industrial court. Judgments of an industrial court can be enforced by writs of execution in the civil court of the district in which the industrial court is situated or the defendant resides.

Decisions of the arbitration committees of the guilds in disputes, the subject-matter of which falls within the jurisdiction of the industrial courts, can only be called in question before the industrial courts if the guilds concerned are situated within the districts of the industrial courts.

In addition to providing for the creation of a system of special labor courts, the law of 1896 made what is considered as a very important change in the existing law regarding civil actions between employers and employees. This change is expressed in the following section:

All disputes arising between employers and their employees, or between different employees, in relation to labor, apprenticeship, or wage conditions, the settlement of which is provided for by section

87c of the law of March 8, 1885, shall, from the day upon which the present law enters into effect, belong to the civil courts of the district where industrial courts have not been created for their decision, without reference as to whether they were brought during the continuance or after the termination of the particular labor, apprenticeship, or wage conditions, and without reference to the value of the matter in dispute.

The significance of this section lies in the fact that prior to the going into force of the present law disputes between employers and employees, or different employees, regarding labor conditions were not treated as ordinary contentions, the settlement of which could be demanded in the civil courts. Instead, the law required that they should be referred to the political authorities, or, in the case of the small trades not under the control of guilds, to special tribunals (*schiedsgerichtlichen Kollegien*). This system, which gave rise to much complaint, is completely abolished by the present law, and such disputes may now be referred for settlement to the industrial courts, or, in their absence, to the civil courts. Workingmen are thus placed in a position of equality with other persons as regards their right to have disputes affecting the conditions of labor settled in the regularly constituted judicial bodies of the country.

Before leaving the consideration of this law, it should be noted that provision is made whereby the industrial courts can be intrusted with certain purely administrative duties. It is made their duty, whenever requested by the provincial authorities (*Landesbehörde*), to make reports concerning industrial questions. For this purpose the courts can appoint special sections to collect and prepare the material desired. Whenever the questions considered interest both employers and employees, these sections must be composed of equal numbers of employer and employee representatives. They meet under the direction of the president of the court. The courts also have the right upon their own initiative to submit propositions to the provincial authorities in reference to matters concerning trades over which their jurisdiction extends.

BUREAU OF LABOR STATISTICS.

Austria is the most recent European nation to create an official bureau for the collection of statistics of labor. Such an office was created by an order of the Emperor dated July 21, 1898, and was placed under the ministry of commerce.

The purpose of this bureau, as set forth in the resolution, is to make investigations and reports concerning the "condition of the laboring classes, especially those in manufactures and trade, mining, agriculture, and forestry, and commerce and transportation, and, further, concerning the working of institutions and laws for the advance-

ment of the welfare of the workingmen, and also concerning the extent and conditions of production in the industries which have been named."

In the prosecution of its work the bureau is directed to seek the cooperation of the State and communal authorities, the chambers of commerce and industry, and the workingmen's accident insurance institutions, and these bodies are directed to render all necessary assistance to the labor bureau in its work.

An important feature of the system created by this resolution is that providing for the creation of a permanent labor council, the duty of which is to act as an advisory body to the labor bureau, and especially to promote harmonious relations between the bureau and the manufacturers or other persons with whom the former comes in contact in the prosecution of its work. This council consists of 32 members, of whom 8 represent the labor bureau and other offices of the Government, and 24 are persons appointed for a term of 3 years by the minister of commerce. Of these 24 one-third must be employers of labor, one-third workingmen, and one-third persons whose technical knowledge makes their cooperation in the work of the council desirable. These members receive no salary, but those living outside of Vienna are paid a per diem of 8 gulden (\$3.25) while in attendance at the council, in addition to traveling expenses, and the workingmen members resident in Vienna receive an allowance of 5 gulden (\$2.03) per day's attendance.

This council was constituted on September 25, and the bureau of labor commenced operations October 1, 1898. The bureau issues a monthly bulletin in addition to regular reports.

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RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

NORTH CAROLINA.

Twelfth Annual Report of the Bureau of Labor Statistics of North Carolina, for the year 1898. James Y. Hamrick, Commissioner. 452 pp.

The subjects treated in this report may be grouped as follows: Commerce of North Carolina, 8 pages; manufacturing industries, 175 pages; agricultural industries, 68 pages; live stock, 23 pages; fisheries, 11 pages; savings banks and insurance companies, 9 pages; newspapers, 13 pages; telephone companies, 1 page; chronology of bureaus, 10 pages; mining and quarrying, 56 pages; letters from manufacturers, 28 pages; railroads, 14 pages; miscellaneous data, 3 pages.

MANUFACTURING INDUSTRIES.—The manufacturing industries considered in the present report are tobacco, distilled spirits, furniture, tanneries and leather manufactories, flour, lumber, woolen, and cotton mills, and miscellaneous factories and trades. Each industry is considered in a separate chapter, and the data given consist, for the most part, of lists of firms engaged in the industries, their locality, the character of the products, wages of employees, and, in some cases, the capacity of the plant, number of employees, total production, etc.

The report shows that in 1898 207 tobacco factories in the State produced a total of 34,988,412½ pounds of plug and smoking tobacco, 7,963,771 cigars, and 309,164,000 cigarettes. During the busy season 16,900 men, 9,700 women, and 5,200 children were employed in this industry. The average daily wages paid were: For skilled labor, men \$1.27, women \$0.64; unskilled labor, men \$0.64, women \$0.37, children \$0.26.

In the textile industries 15 woolen spinning and weaving mills, 21 woolen carding mills, and 220 cotton mills were reported. The woolen mills had a total capacity of 5,354 spindles and 208 looms, and the cotton mills 1,054,686 spindles and 24,535 looms. The average daily wages paid were: In woolen mills, for skilled labor, men \$1.01½, women \$0.56; unskilled labor, men \$0.62, women \$0.28½; in cotton mills, for skilled labor, men \$1.07, women \$0.63; unskilled labor, men \$0.68, women \$0.45, children \$0.32.

In the other industries considered in the report the following average daily wages were paid: In lumber mills in the eastern part of the State, for engineers, \$1.39; firemen, \$0.95; sawyers, \$1.91; laborers, \$0.79. In the middle and western sections of the State, for engineers, \$0.82; firemen, \$0.70½; and sawyers, \$1.08½. In distilleries, for skilled men, \$1; unskilled men, \$0.50. In furniture factories, skilled men,

\$1.13; unskilled men, \$0.64; children, \$0.37½. In tanneries, skilled men, \$1.09; unskilled men, \$0.63½. In flour mills, skilled men, \$1.17½; unskilled men, \$0.63. The report also gives a list of 1,618 firms engaged in various kinds of factories and trades in the State.

AGRICULTURE, LIVE STOCK, AND FISHERIES.—A number of chapters are devoted to general agricultural statistics, truck farming, articles on tobacco and fruit culture, statistics showing the condition of the soil, farm acreage, timber lands, etc., of each county, and the live stock and fisheries industries.

MINING AND QUARRYING.—The chapters relating to this subject show the mineral resources of the State, containing a description of the various stone, ore, and coal deposits, lists of mines and quarries in operation, and in some cases, statistics of production.

RAILROADS.—There were 3 principal and 28 minor railroad systems in the State in 1898, employing 8,999 persons. Tables are given showing the mileage and assessed valuation of the railroads and the number and average daily wages of employees.

PENNSYLVANIA.

Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania. Vol. XXVI, 1898. Part III, Industrial Statistics. James M. Clark, Chief of Bureau. 466 pp.

The present report deals with the following subjects: An article on economics in the Philippines, 12 pages; an article on the silk industry, 52 pages; statistics of manufactures, 349 pages; silk manufacture, 8 pages; production of iron, steel, and tin plate, 20 pages; limestone production, 2 pages; analysis, 13 pages.

STATISTICS OF MANUFACTURES.—The first series of tables under this head consists of comparative statistics for 358 identical establishments representing 47 industries, for the years 1892 to 1898, inclusive. The data comprise average days in operation, persons employed, aggregate wages paid, average daily and yearly wages per employee, value of product, and average value per employee of the annual product. The following table gives a summary of the more important data:

PERSONS EMPLOYED, WAGES PAID, AND VALUE OF PRODUCT FOR 358 MANUFACTURING ESTABLISHMENTS, 1892 TO 1898.

Year.	Average persons employed.		Aggregate wages paid.		Average yearly earnings.		Value of product.	
	Number.	Per cent of increase.	Amount.	Per cent of increase.	Amount.	Per cent of increase.	Amount.	Per cent of increase.
1892	137,612		\$67,505,814		\$490.55		\$270,359,609	
1893	122,992	a 10.62	57,054,783	a 15.48	463.89	a 5.43	226,794,526	a 16.11
1894	110,071	a 10.51	45,459,013	a 20.32	413.00	a 10.97	186,386,247	a 17.82
1895	128,112	16.39	56,973,666	25.33	444.72	7.68	223,580,071	19.96
1896	118,792	a 7.27	52,343,792	a 8.13	440.63	a .92	212,652,158	a 5.16
1897	121,995	2.70	52,406,316	.12	429.58	a 2.51	223,889,449	5.58
1898	138,762	13.74	62,960,638	20.14	453.73	5.62	267,048,287	19.28

a Decrease.

The year 1898 marked a considerable improvement in manufacturing industries in the State, the value of the products and the aggregate wages paid being higher than during any year since 1892, while the number of persons employed in 1898 was even greater than in 1892, the year preceding the industrial depression. Compared with the year of greatest depression, 1894, the figures for 1898 show an increase of 26 per cent in the number of employees, 38 per cent in the aggregate wages paid, and 43 per cent in the value of the product. The average yearly earnings per employee show an increase of nearly 10 per cent in 1898 as compared with 1894.

The second series of tables presented comprises returns for 1896, 1897, and 1898 from 901 identical establishments, representing 101 industries, and shows the capital invested, value of basic material, average days in operation, persons employed, wages paid, market value of the product, and amount of production. These returns cover more ground than the preceding and enable a better comparison for the 3 years considered.

The following is a summary statement for 901 establishments reporting for the years 1896, 1897, and 1898:

STATISTICS OF 901 MANUFACTURING ESTABLISHMENTS, 1896, 1897, AND 1898.

Items.	1896.	1897.	1898.
Capital invested in plants and fixed working capital.....	\$211,053,779	\$214,614,083	\$219,027,763
Value of basic material (a).....	<i>b</i> \$99,456,717	<i>b</i> \$108,885,762	<i>b</i> \$122,120,996
Average days in operation.....	268	276	286
Persons employed.....	133,660	150,078	165,333
Aggregate wages paid.....	\$54,028,185	\$56,497,999	\$65,078,302
Market value of product.....	\$202,410,382	\$220,092,603	\$254,683,443
Value of product per employee.....	\$1,514.37	\$1,466.52	\$1,540.43
Average yearly earnings.....	\$404.22	\$376.46	\$393.62
Average daily earnings.....	\$1.51	\$1.36	\$1.38
Per cent of value of basic material of value of product....	<i>c</i> 49.4	<i>c</i> 49.7	<i>c</i> 48.2
Per cent of wages of value of product.....	26.7	25.7	25.6

a By basic material is meant only the material out of which the product was made and does not include any of the materials used in its development.

b Figures for 898 establishments, 3 not reporting.

c Based on data for 898 establishments.

A comparison of the figures for 1898 with those for 1896 shows an increase of 3.78 per cent in the amount of capital invested, 22.79 per cent in the value of the basic material, 25.83 per cent in the value of the product, 20.45 per cent in the aggregate wages paid, and 23.70 per cent in the number of persons employed. There was a decrease of 2.62 per cent in the average yearly earnings per employee during this period. The establishments were in operation an average of 268 days in 1896, 276 days in 1897, and 286 days in 1898.

SILK MANUFACTURE.—Statistics of silk manufacture in Pennsylvania are given for 1898, and for the Federal and State census years 1890 and 1895, respectively. In 1898 there were 88 silk manufactur-

ing establishments in the State, containing 699,308 spindles, 177 hand looms, 9,238 power looms, and 3,401 knitting, lace, sewing, and braiding machines. They gave employment to 5,441 males and 10,998 females over 16 years of age, and 3,926 children between the ages of 13 and 16 years, or a total of 20,365 employees. The aggregate wages paid amounted to \$4,866,851, and the total product was valued at \$32,250,599. The average yearly earnings of male adults were \$371.73; female adults, \$215.61, and children, \$120.48. The silk manufacturing establishments were in operation an average of 51 weeks during the year. Compared with the years 1890 and 1895, the returns for 1898 show a considerable increase of activity in the silk manufacturing industry of the State.

IRON, STEEL, AND TIN-PLATE PRODUCTION.—During 1898, 5,367,979 gross tons of pig iron were produced, having a total value of \$53,331,228. The cost of basic materials, which means only the iron-producing materials—that is, the ore and scrap or cinder—was \$29,377,657. There were 11,911 persons employed, receiving a total of \$5,268,503 in wages, or \$442.32 per employee. Each of these items, except the total cost of basic materials, shows an increase over the preceding year.

The steel production in 1898 was 3,357,684 gross tons of Bessemer steel, 1,848,732 gross tons of open hearth, and 69,568 gross tons of crucible steel, making a total of 5,275,984 gross tons.

The production of iron and steel rolled into finished form amounted to 5,537,249 net tons, valued at \$136,820,442. This comprises bar, rods, strip, steel, skelp, shapes, rolled axles, structural iron, plates, sheets, cut nails, spikes, rails, etc., but does not include billets or muck bar. The value of the basic material used in this production was \$79,924,581. There were 56,230 persons employed, receiving an aggregate of \$27,879,202 in wages, or \$495.81 per employee. The establishments were in operation an average of 278 days. In all of these items the returns for 1898 show an increase over the preceding year.

In 1898 black plate was produced in 18 establishments, 15 of which turned out tinned products. The total production of black plate was 344,064,000 pounds, of which 222,528,000 pounds were tinned in the establishments. The value of the tinned product was \$6,697,921, and of the untinned black plate \$2,646,314, making a total value of \$9,344,235. The establishments were in operation 278 days, employed 5,036 persons, and paid an aggregate of \$2,943,954 in wages, or \$584.58 per employee. Each of these items, except the number of days in operation, shows an increase over the preceding year.

Seven tin-plate dipping works, which buy all their black plate, produced 40,406,000 pounds of tin and terne, valued at \$1,747,176. They were in operation 259 days, employed 421 persons, and paid \$127,236

in wages. The total production of tin andterneplate by the 22 black plate and dipping works was, therefore, 262,934,000 pounds, having a total value of \$8,445,097. Compared with the preceding year there was an increase of 16.5 per cent in the total production and of 20.7 per cent in the total value of tin andterneplate produced.

LIMESTONE PRODUCTION.—The quarries for the production of limestone for iron manufacturing purposes were in operation an average of 269 days during 1898, producing a total of 4,200,523 tons of limestone, of a total value of \$1,305,566. The quarries employed 2,481 persons, receiving an aggregate of \$764,977 in wages, or \$308.33 per employee.

TENNESSEE.

Eighth Annual Report of the Bureau of Labor, Statistics, and Mines of the State of Tennessee, for the year ending December 31, 1898.

A. D. Hargis, Commissioner. viii, 248 pp.

This report, like those for preceding years, is mainly devoted to mining industries. The subjects treated may be grouped as follows: Statistics of mines and mine inspection, 162 pages; coke manufacture, 21 pages; the pig-iron industry, 6 pages; the phosphate industry, 33 pages; labor laws, 23 pages.

STATISTICS OF MINES AND MINE INSPECTION.—The statistics relate to the production of coal, iron, copper, lead, zinc, sulphur, and manganese, and show the amount and value of mine products, the names and location of mines, and in some cases comparative figures for a series of years and for Tennessee and other States. In the case of coal mining, the number of employees and the days in operation are also shown. Casualties in mines are extensively treated in this report. Following is a summary of the most important returns presented for 1898 with respect to mining and related industries in Tennessee:

Total number of coal mines	76
Coal mines in operation	61
Average number of days active	217
Coal produced	tons.. 3, 084, 748
Value of coal produced	\$2, 340, 346
Average value of coal per ton at mine	\$0. 75
Average number of employees in coal mines	7, 820
Average days worked in coal mines	197
Coke produced	tons.. 394, 545
Value of coke produced	\$710, 181
Average number of employees engaged in coke making	375
Iron ore produced	tons.. 595, 777
Pig iron produced	do.. 263, 439
Copper ore produced	do.. 89, 721
Zinc ore produced	do.. 454
Manganese ore produced	do.. 1, 250
Sulphur pyrites produced	do.. 1, 178

Sixty-three casualties were reported in the mines, 20 of which were fatal. Of the fatal accidents 19 occurred in coal mines and 1 in a copper mine.

THE PHOSPHATE INDUSTRY.—This part of the report consists of a contributed article on "Phosphate deposits of Tennessee," showing the character, location, and extent of the deposits and statistics of phosphate production. In 1898 272,191 tons of phosphate were produced in the State.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

BELGIUM.

Annuaire de la Législation du Travail. 2e Année, 1898. Office du Travail, Ministère de l'Industrie et du Travail. 1899. xi, 387 pp.

This publication is the second of a series of annual reports on labor legislation prepared by the Belgian labor bureau. It contains the text of laws enacted and important regulations, orders, and decrees issued concerning labor during the year 1898 in Germany, Austria, Belgium, Denmark, France, Great Britain and colonies, Hungary, Italy, Holland, Switzerland, the United States, and the States of Massachusetts, Mississippi, and Ohio. An appendix contains the text of labor laws enacted in 1897 in New Zealand and Norway which had been omitted from the first annual report.

DENMARK.

Statistisk Bureaus Historie et Omrids, udarbejdet i Anledning af Bureauets 50-aarige Bestaaen. Udgivet af Statens Statistiske Bureau. 1899. 184 pp.

The present work, which gives a history and outline of the Danish statistical bureau, was published on the occasion of the fiftieth anniversary of its organization. It also contains a brief outline of official statistical work in Denmark before the organization of a regular bureau. The work consists of two parts, the first relating to the creation of the bureau, its functions, expenditures, and personnel, and the second part describing the nature of its publications. An appendix contains a list of the principal officers of the bureau since its organization, a list of all its publications, and a digest of the present work in the French language.

GREAT BRITAIN.

First and Second Reports of Proceedings under the Conciliation (Trade Disputes) Act, 1896. First report, 1897, vi, 55 pp. Second report, 1899, 21 pp. (Published by the British Board of Trade.)

The first report deals with the proceedings under the conciliation act, 1896, (a) for the first ten months during which the act was in opera-

a For a copy of this act see Bulletin No. 25, p. 833.

tion, namely, from August, 1896, to the end of June, 1897, and the second report covers the period from July 1, 1897, to the end of June, 1899. The reports contain summary tables showing the occupation and locality of disputants, date and source of application for conciliation and arbitration, nature of the action taken by the board of trade, the result, etc., in each case coming before the board under the conciliation act, a summary of information supplied by boards of conciliation when applying for registration under the act, and an analysis of the summary tables. The first report also gives a detailed statement of each case, and the second report contains a list of conciliation boards registered and of disputes settled under the act since its passage.

The following table gives particulars of the action taken by the board of trade and the results during the periods covered by the two reports:

DISPUTES ACTED UPON BY THE BOARD OF TRADE UNDER THE CONCILIATION ACT, AUGUST, 1896, TO JUNE, 1899.

Items.	August, 1896, to June, 1897.	July, 1897, to June, 1899.	Total.
Disputes settled under the act:			
By conciliation.....	14	12	26
By arbitration.....	5	10	15
Total	19	22	41
Disputes settled between the parties during negotiations.....	4	3	7
Failures to effect settlements.....	5	2	7
Applications refused by the board of trade.....	7	5	12
Total	35	32	67

Report on the Money Wages of Indoor Domestic Servants. 1899. vii, 50 pp. (Published by the Labor Department of the British Board of Trade.)

The present report by Miss C. E. Collet, correspondent of the labor department of the British board of trade, is the first attempt at a serious investigation of the wages of domestic servants in Great Britain. The investigation was made by means of schedules of inquiry addressed to persons employing domestic servants. These schedules called for the occupation, age, rate of wages on entering service and at the time of the inquiry, money allowances for perquisites, and length of service with present employer.

The report is based on 2,067 schedules returned at various periods between 1894 and 1898. The schedules show the average yearly wages of 5,568 indoor domestic servants, of whom 230 were males and 5,338 were females. While the figures presented cover but a small proportion of all the domestic servants in the United Kingdom, it is believed that a sufficient number of returns for each age and occupation were received to give a fair idea of wage rates generally for the respective ages and occupations. The general averages for all occupations and

ages were determined by applying the average wages of servants at each age period, as shown in the returns, to the entire number of servants at these age periods as enumerated in the last census. The general result thus obtained showed an average yearly wage rate of £17 16s. (\$86.62) in London, £15 10s. (\$75.43) in the rest of England and Wales, and £17 6s. (\$84.19) in the three principal Scottish towns. These rates are exclusive of perquisites and board and lodging.

The report deals mainly with female servants, as the number of males employed in domestic service is comparatively insignificant, while about one-third of the wage-earning female population of the United Kingdom are engaged in such service. The following table shows the average yearly wages in London, the rest of England and Wales, Scotland, and Ireland at different age periods of female servants for whom returns were made:

AVERAGE YEARLY WAGES OF FEMALE DOMESTIC SERVANTS, CLASSIFIED ACCORDING TO AGE.

Age.	London.	England and Wales (excluding London).	Scotland.	Ireland.
Under 16 years.....	\$38.45	\$34.55	\$36.99	\$38.93
16 years.....	45.26	43.80	50.61	49.64
17 years.....	51.58	51.58	55.96	56.99
18 years.....	62.29	59.37	65.70	48.72
19 years.....	68.62	61.80	67.16	51.58
20 years.....	76.40	70.08	75.92	62.29
21 or under 25 years.....	85.16	80.30	84.68	61.32
25 or under 30 years.....	100.25	94.90	96.36	73.48
30 or under 35 years.....	112.90	104.63	104.63	86.14
35 or under 40 years.....	131.40	112.42	110.96	82.24
40 years or over.....	135.29	120.20	114.36	87.60
Servants included in above.....	1,867	2,461	651	359

This table shows a steady rise in wages with each increasing age period, servants 40 years of age or over receiving the highest rates.

The following table shows the average yearly wages and the ages of female domestic servants, classified according to households, with each specified number of servants:

AVERAGE YEARLY WAGES AND AGES OF FEMALE DOMESTIC SERVANTS, CLASSIFIED ACCORDING TO NUMBER OF SERVANTS IN HOUSEHOLD.

Households employing—	Average yearly wages.				Average ages (years).			
	London.	England and Wales (excluding London).	Scotland.	Ireland.	London.	England and Wales (excluding London).	Scotland.	Ireland.
1 servant.....	\$72.51	\$64.24	\$75.43	\$54.99	25.2	23.1	23.6	29.1
2 servants.....	80.78	77.38	78.84	64.72	25.7	25.9	25.5	27.9
3 servants.....	91.49	86.62	90.03	75.43	27.5	27.9	28.6	30.7
4 servants.....	100.74	89.64	100.25	77.38	28.2	27.2	29.3	30.0
5 servants.....	103.66	92.95	100.25	89.54	28.0	27.5	27.8	29.4
6 servants.....	118.74	98.79	99.76	85.16	28.5	28.6	29.2	30.6
Over 6 servants.....	123.12	112.90	115.34	99.76	28.9	28.2	27.8	30.4

This table shows that the wages as well as the ages of female servants increase with the number of servants in a household, servants employed in households having but 1 servant receiving the lowest wages, while those employed in large households having 6 or more servants received the highest wages in each of the divisions given.

The report does not show the average wages of all female servants by occupations except for certain age periods, because the different proportions in which the age periods and occupations are represented would prevent such an average from being truly representative. The following table, however, shows the average yearly wages of the different classes of female servants at such selected age periods as include the largest number of each occupation. Thus the table, while fairly representative, covers but a portion of the total returns.

AVERAGE YEARLY WAGES OF FEMALE DOMESTIC SERVANTS, AT SELECTED AGE PERIODS, BY OCCUPATIONS.

Occupation.	Selected age period (years).	London.	England and Wales (excluding London).	Scotland.	Ireland.
Between maid.....	19.....	\$60.84	\$62.07		
Scullery maid.....	19.....	66.67	68.26		
Kitchenmaid.....	20.....	80.78	78.00	\$73.00	\$64.99
Nurse-housemaid.....	21 or under 25	72.51	77.86	68.13	
General servants.....	21 or under 25	72.51	71.06	74.46	50.12
Housemaid.....	21 or under 25	85.16	78.84	83.22	65.70
Nurse.....	25 or under 30	102.20	97.82	94.90	76.89
Parlor maid.....	25 or under 30	108.04	100.25	97.82	77.86
Laundry maid.....	25 or under 30	132.86	114.86	97.83	
Cook.....	25 or under 30	106.09	98.30	100.25	83.70
Lady's maid.....	30 or under 35	136.75	120.20	118.74	116.80
Cook-housekeeper.....	40 or upwards	202.45	173.25	107.06	
Housekeeper.....	40 or upwards	166.92	254.03	218.99	

With regard to length of service, it is shown that of 1,864 servants reported for London, 36 per cent had been in the service of their present employers less than 1 year; 45 per cent, 1 year or under 5 years; 11 per cent, 5 years or under 10 years, and 8 per cent, 10 years or over. In the rest of England and Wales and in Scotland and Ireland, the proportions are very nearly the same.

Of the 230 male servants whose wages are reported, the occupations and average yearly wages were as follows: 85 butlers, £58 12s. (\$285.18); 84 footmen, £26 14s. (\$129.94); 31 men servants of various kinds, £38 12s. (\$187.85); 28 boys, £10 18s. (\$53.04), and 2 cooks, £128 (\$622.91).

Besides the more detailed presentation of the returns of the present investigation, the report also gives a comparative table showing the rates of wages received in large households in 1886 and at the time of the present investigation. This comparison shows that the average wages were nearly the same at the two periods.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, has been continued in successive issues. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks and when long by being printed solid. In order to save space, immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

CONSTITUTIONALITY OF STATUTE—EXAMINATION OF COAL-MINE MANAGERS—*Woodruff et al. v. Kellyville Coal Co.*, 55 *Northeastern Reporter*, page 550.—An action of debt was brought by Clara Bell Woodruff and others, as next of kin to one Ira B. Woodruff, deceased, against the above-named company, to recover damages for the death of said Woodruff, who, while in the employ of said company as a miner, was injured by a fall of coal from the roof, and died in consequence of said injury. At the trial of the case in the circuit court of Vermilion County, Ill., the defendant company demurred to the declaration, and, said demurrer being sustained, a judgment was rendered in its favor. The plaintiff then carried the case on writ of error to the supreme court of the State, which rendered its decision October 16, 1899, and affirmed the judgment of the lower court. A petition for a rehearing having then been filed by the plaintiff, the same was denied by the court December 13, 1899.

The opinion of the supreme court was delivered by Judge Phillips, and in the following, quoted therefrom, the important points of the decision are fully and clearly stated:

The act under which this suit is brought is entitled "An act to provide for the examination of mine managers and to regulate their employment," approved June 18, 1891, in force July 1, 1891. (Sections 20 to 24 of chapter 93, Annotated Statutes of 1896.)

Section 13 of article 4 of the constitution of this State contains, inter alia, the following provision: "No act hereafter passed shall embrace more than one subject, and that shall be expressed in the title. But if any subject shall be embraced in an act which shall not be expressed in the title, such act shall be void only as to so much thereof as shall not be so expressed."

While this act declares in its title that it is to provide for the examination of mine managers and to regulate their employment, the sections prior to section 5 of the act declare it to be unlawful to assume or attempt to discharge the duties of mine manager, where the output of the mine may be 25 or more tons per day, unless the person assuming to discharge such duties shall hold a certificate as to his qualifications for that position, as may be required by the act, from the board of mine examiners, and defines the term "mine manager." It is then

provided that the certificate provided for may be either a certificate of competency or of service, and any person may appear and submit to an examination as to his competency or length of service before the board of examiners.

By section 5 no owner, operator, or agent of any mine to which this act applies shall employ any mine manager who does not hold either a certificate of competency or of service herein provided for; and the last sentence of that section provides that any violation of the provisions of the act shall be deemed a misdemeanor on the part of such owner, operator, or agent, and punished accordingly. The further provision contained in section 5, that "if any accident shall occur in any mine in which a mine manager shall be employed who has no certificate, * * * by which any miner shall be killed or injured, he or his heirs shall have right of action against such operator, owner or agent, and shall recover the full value of the damages sustained," seeks to provide a recovery purely as a penalty, and in no way dependent upon any question of negligence on the part of the mine manager or pit boss resulting from his incompetency; nor is it made to rest upon any act of negligence upon the part of the owner, operator, or agent of the mine, other than by his employing a mine manager who does not hold such certificate as required. It is therefore an attempt on the part of the legislature to provide for a third person recovering a penalty equal to any damage sustained by reason of any miner being killed or injured by any accident in a mine in which the mine manager or pit boss has no certificate of competency or of service. To the extent, therefore, that the act directs and requires that the mine manager shall hold a certificate of competency or of service, to be issued by a board of examiners as directed in the act, and holds him guilty of a misdemeanor for so failing, and punishes him accordingly, it may be said the act provides for the examination of mine managers, and seeks to regulate their employment by declaring a violation of the statute a misdemeanor, and by punishing the owner, operator, or agent for employing one not holding such certificate, and this is the only subject mentioned in the title of the act.

An attempt to give a right of action to third persons by reason of any injury or death resulting from any accident in the mine where the mine manager does not hold such certificate of competency or service, with a recovery to the extent of damages sustained thereby, is not a provision which is included in the title of the act, and has no reference to the examination of mine managers and the regulating of their employment. Any other construction of this act would provide for a double punishment, one by reason of the last sentence of section 5, and the other by reason of the right of third persons to recover a penalty, not dependent on an injury sustained by reason of the want of a certificate of competency or service on the part of the mine manager, or by reason of any neglect of his. It may well be doubted whether such double punishment may be inflicted for the violation of the act, but we do not deem it necessary to at this time discuss that question. It is clear that nothing in the title of the act has reference to the right of third persons to recover for an injury received in a mine or damages for the death of a person in a mine, either case resulting from an accident in such mine where the mine manager holds no certificate as required by the act, and where the accident in no manner results by reason of the incompetency of the mine manager.

For the reason that the title of the act in no manner embraces the right of a third person to recover a penalty for its violation, we hold the act unconstitutional, so far as such right of recovery by such third person is sought to be given.

CONSTITUTIONALITY OF STATUTE—HOURS OF LABOR ON PUBLIC WORKS—*In re Dalton*, 59 *Pacific Reporter*, page 336.—The petition of one J. T. Dalton for a writ of habeas corpus was filed in the supreme court of the State of Kansas. It alleged, in effect, that he was unlawfully restrained of his liberty by the sheriff of Geary County, being held in custody by him under a warrant, in which he was charged with the violation of chapter 114, acts of Kansas of 1891, providing that eight hours shall constitute a day's work for all laborers, workmen, mechanics, and other persons employed by or on behalf of any county, city, township, or other municipality in the State, in that he permitted and required certain workmen employed by him to work over eight hours per day in building a county court-house and jail, for the building of which he and one J. C. Zeigler had contracted with the county commissioners of Geary County. He alleged that the statute, above referred to, was unconstitutional and void, but the supreme court, after a hearing, rendered its decision December 9, 1899, and affirmed the constitutionality of the statute and denied the writ.

Judge Smith delivered the opinion of the court and in the course of the same used the following language:

The law for a violation of which the petitioner is prosecuted is to be regarded as a direction by a principal to his agent—a matter of concern to the principal and agent alone. The State declares by this statute that all laborers, workmen, or mechanics engaged in its service shall not work thereunder more than eight hours per day; that it will make no contracts for longer hours. A by-law of a corporation might provide that none of its agents should employ persons to labor in its behalf more than eight hours in any one day. Such by-law would be a matter of private concern between the corporation and the persons who sought employment by it. Here the State has seen fit to declare (and for what reason it is unnecessary to inquire) that eight hours shall constitute a day's work for all persons employed by it or by any of its political subdivisions. A contractor, in bidding for work to be done by the State, county, city, or township, understands, in making his estimates, that under the law eight hours per day is the maximum time which his employees may work. He is in nowise prejudiced, for all other bidders for the same work have equal knowledge of the rule which the State has established governing the hours of labor to be performed in its behalf. The position which the State has taken in nowise differs from that of an individual who, in the employment of labor, refuses to permit his employees to labor more than eight hours. It is certainly lawful for one to refuse to employ men to work more than a given number of hours per day.

We see in this law no infringement of constitutional rights. There

can be no compulsion of a contractor to bid upon public work, nor is the laborer bound to take employment from a person having such contract. If the terms relating to the hours of labor do not suit either the contractor or the employee, there is no compulsion upon either the one or the other to take the contract, or to perform any labor for the State. The terms of employment are, by this statute, publicly proclaimed; and, if a person insists upon working more than eight hours a day, he must seek other employment. His liberty of choice is not interfered with, nor his right to labor infringed. Whatever orders the State may give directly to its own agents it may require of its political subdivisions, instrumentalities of said government, such as counties, cities, and townships. We conclude, therefore, that the statute under consideration is a mere direction of the State to its agents, and a proper exercise of its power in that respect.

CONSTITUTIONALITY OF STATUTE—PAYMENT OF WAGES, ETC.—*State v. Haun*, 59 *Pacific Reporter*, page 340.—In an inferior court of the State of Kansas one C. L. Haun (agent and cashier of the Kansas Commercial Coal Company) was convicted of paying his employees in other than lawful money in violation of chapter 145, acts of Kansas of 1897. Upon an appeal to the court of appeals of the State his conviction was affirmed and he then appealed to the supreme court of Kansas, which rendered its decision December 9, 1899, and reversed the decisions of the lower courts upon the ground that the act above referred to, for a violation of which the appellant had been convicted, “is unconstitutional and void, in that it violates the fourteenth amendment to the Constitution of the United States, which provides, ‘nor shall any State deprive any person of life, liberty, or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.’” The act referred to reads, in part, as follows:

SECTION 1. It shall be unlawful for any person, firm, company, corporation or trust, or the agent, or the business manager of any such person, firm, company, corporation or trust to sell, give, deliver or in any way directly or indirectly to any person employed by him or it, in payment of wages due or to become due, any scrip, token, check, draft, order, credit on any book of account or other evidence of indebtedness, payable to bearer or his assignee, otherwise than at the date of issue, but such wages shall be paid only in lawful money of the United States, or by check or draft drawn upon some bank in which any person, firm, company, corporation, or trust, or the agent, or the business manager of any such person, firm, company, corporation, or trust, has money upon deposit to cash the same.

SEC. 2. All contracts to pay or accept wages in any other than lawful money, or by check or draft, as specified in section one of this act, and any private agreement or secret understanding that wages shall be or may be paid, in other than lawful money, or by such check or draft, shall be void, and the procurement of such private agreement or secret understanding, shall be unlawful and construed as coercion on the part of the employer.

SEC. 3. If any person shall violate any of the provisions of either section one or two of this act, or shall compel, or in any manner attempt to compel, or coerce any employee of any corporation, or trust to purchase goods, or supplies, from any particular person, firm, corporation, company or trust or at any particular store or place, he shall be guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than one hundred dollars nor more than five hundred dollars, or be imprisoned in the county jail not less than thirty or more than ninety days, or by both such fine and imprisonment for each violation.

SEC. 4. This act shall apply only to corporations or trusts or their agents, lessees, or business managers, that employ ten or more persons.

The opinion of the supreme court, delivered by Judge Smith, contains the following language:

In sustaining the constitutionality of the act under consideration, the court of appeals held that it applied only to corporations and trusts severally employing ten or more persons, and, further, that the act is constitutional as a valid exercise of legislative authority to alter and amend corporate charters. While the State might prohibit a foreign corporation from doing business here, it can hardly be claimed that it could alter or amend a corporate charter granted by the laws of another State. We will proceed, however, by assuming that the coal company was a Kansas corporation. There is no suggestion in the title of the act that the provisions of corporate charters are to be in any wise affected. The title reads: "An act to secure to laborers and others the payment of their wages, and prescribing a penalty for the violation of this act, and repealing sections 2441, 2442, and 2443 of the General Statutes of 1889, and all acts and parts of acts in conflict herewith." The first section of the act makes it unlawful for any person, firm, company, corporation, or trust to give any scrip, token, check, or order to any employee. The application of this section to persons, firms, companies, and trusts makes it quite clear that the general scope and purpose of the law are defined in its title, and that the alteration or amendment of corporate charters was never intended by the legislature, and is not expressed in the body of the act, when the true rules of construction are applied thereto. Just how the court of appeals concluded that the act we are now considering did not apply to individuals, but to trusts and corporations only, when a trust may be composed of persons or firms associated together, we do not understand. A trust may or may not be endowed with corporate powers. If not, then it is a mere aggregation of individuals or partnerships, and could hardly be regulated under a law, the constitutionality of which can be sustained only upon the ground that it alters and amends corporate charters. We are clearly of the opinion that a construction of the act which attributes to it a purpose to alter or amend corporate charters is erroneous.

We have no hesitation in saying that if this statute had, without defect as to title, clearly and in express terms amended corporate charters, retaining the section classifying corporations to which it was applicable by the number of men in their employ, it would be obnoxious to the fourteenth amendment to the Constitution of the United States. The law is partial and unequal in its operation. The first section of the act makes it "unlawful for any person, firm, company,

corporation, or trust, or the agent, or the business manager of any such person, firm, company, corporation or trust," to do certain things. Section 2 declares that "all contracts to pay or accept wages in any other than lawful money, or by check or draft, as specified in section 1, of this act, and any private agreement or secret understanding that wages shall be or may be paid, in other than lawful money, or by such check or draft, shall be void." So far the act is general, and applies to all persons and aggregations of persons alike. In section 3 partiality commences. Any person, says that section, who "shall compel or in any manner attempt to compel, or coerce any employee of any corporation, or trust to purchase goods, or supplies, from any particular * * *" store or person shall be guilty of a misdemeanor. If, therefore, any person compels or attempts to compel or coerce any employee, other than an employee of a corporation or trust, he is guiltless of wrong, and may proceed with his compulsion without fear of prosecution. Section 4 provides that the act "shall apply only to corporations or trusts or other agents, lessees, or business managers that employ ten or more persons." Not only is the attempted act of compulsion or coercion denounced in section 3 made applicable only to corporations and trusts, but the denunciation of section 4 does not touch a corporation or trust that employs less than ten men. Thus an act of an agent or a corporation or trust of a given class is unlawful, while the same act of the same man is lawful if he works for an individual or another class of corporations or trusts. Again, the same act of the same man would be unlawful to-day if his employer was a corporation or trust and employed ten men, while to-morrow it would be lawful, provided in the meantime the corporation or trust had discharged one of its employees.

The obvious intent of the act is to protect the laborer, and not to benefit the corporation. Why should not the nine employees who work for one corporation be equally protected with the eleven engaged in the same line of employment for another corporation? If such law is beneficial to wage earners in the one instance, why not in the other? The nine men lawfully paid for their labor in goods at a truck store might with much reason complain that the protection of the law was unequal as to them, when they saw eleven men paid in money for the same service performed for another corporation engaged in a like business. Such inequality destroys the law. In the instance cited, two of the eleven men might quit the employment of the company for which they worked, and by this act alone make a method of payment by the corporation lawful which was unlawful while the eleven were employed. The criminality or innocence of an act done ought not to depend on the happening of such a circumstance. Equal protection of the laws means equal exemption with others of the same class from all charges and burdens of every kind.

If the classification attempted by this act is a constitutional one, it follows that the legislature might have made the law applicable only to corporations employing married men or persons over a certain age, or to corporations a portion of whose employees were women, or applied any other arbitrary or capricious means of distinction. In the language of Mr. Justice Brewer, "In all cases it must appear, not only that a classification has been made, but also that it is one based upon some reasonable ground,—some difference which bears a just and proper relation to the attempted classification." A classification of the

kind attempted makes a distinction between corporations identically alike in organization, capital, and all other powers and privileges conferred by law. It is arbitrary and wanting in reason. The act in question is class legislation of the most pronounced character.

However much the employed might profit by the necessities of the employer desiring to exchange property for labor at a value advantageous to the former, all such beneficial agreements are prohibited by this law. In short, such legislation infringes upon natural rights and constitution grants of liberty. It treats the laborer as a ward of the Government, and discourages the employment of those talents which lead to success in the fields of commercial enterprise. Persons *sui juris* need no guardians. Those who seek to put a protector over labor reflect upon the dignity and independence of the wage earner, and deceive him by the promise that legislation can cure all the ills of which he may complain. Such legislation suggests the handiwork of the politician rather than the political economist.

It has been sought by some judges to justify legislation of this kind upon the theory that, in the exercise of police power, a limitation necessary for the protection of one class of persons against the persecution of another class may be placed upon freedom of contract. As between persons *sui juris*, what right has the legislature to assume that one class has the need of protection against another? In this country the employee to-day may be the employer next year, and laws treating employees as subjects for such protective legislation belittle their intelligence, and reflect upon their standing as free citizens. It is our boast that no class distinctions exist in this country. An interference by the legislature with the freedom of the citizen in making contracts, denying to a part of the people, possessing sound minds and memory, the right to bargain concerning the equivalent they may desire to receive as compensation for their labor, is to create or carve out a class from the body of the people, and place that class within the pale of protective laws which invidiously distinguish them from other free citizens; thus dividing by arbitrary fiat equally free and intelligent people into distinctive classes or grades, the one marked by law as the object of legislative solicitude, the other not. This discrimination has been justified by writers defending the doctrine of paternalism, and by some judges, upon the asserted fact that labor is constantly engaged in an unequal contest with capital, and that the former must be reenforced by the legislative power of the State, to prevent its overthrow in the conflict.

Freedom of action—liberty—is the corner stone of our governmental fabric. Laws which infringe upon the free exercise of the right of a workingman to trade his labor for any commodity or species of property which he may see fit, and which he may consider to be the most advantageous, is an encroachment upon his constitutional rights, and an obstruction to his pursuit of happiness. Such laws as the one under consideration classify him among the incompetents, and degrade his calling. The proportion of lawful money in circulation is small, compared with the value of other property in the United States. Accumulated wealth, much or little, is represented in a very small part by money. To say that a free citizen can contract for or agree to receive in return for his labor one kind of property only, and that which represents the smallest part of the aggregate wealth of the country, is a restriction of the right to bargain and trade, a suppression of

individual effort, a denial of inalienable rights. In *Tied. Lim.*, sec. 178, the author says: "Laws, therefore, which are designed to regulate the terms of hiring in strictly private employments, are unconstitutional, because they operate as an interference with one's natural liberty, in a case in which there is no trespass upon private right, and no threatening injury to the public. And this conclusion not only applies to laws regulating the rate of wages of private workmen, but also any other law whose object is to regulate any of the terms of hiring, such as the number of hours of labor per day, which the employer may demand. There can be no constitutional interference by the State in the private relation of master and servant, except for the purpose of preventing frauds and trespass."

In the case at bar the appellant did not urge or compel the employee Graves to take the order for merchandise. Graves voluntarily applied for and requested that the same be given to him between pay days. Had he been content to have waited until the regular pay day, he would have received his wages in money. It was his option to take the order, and for compliance with his request the appellant was convicted. Here was no force or compulsion on the part of the appellant, and he committed no fraud or trespass. We conclude, therefore: First, that chapter 145 of the laws of 1897 is not to be construed as altering or amending corporate charters; second, it is in violation of the fourteenth amendment to the Constitution of the United States, in that it denies to persons within this State the equal protection of the laws. The judgment of the court of appeals and of the district court is reversed, and the appellant discharged.

CONSTITUTIONALITY OF STATUTE—PAYMENT OF WAGES—LIEN FOR UNPAID WAGES—*Johnson v. Goodyear Mining Co., et al.*, 59 *Pacific Reporter*, page 304.—This action was by Andrew Johnson against the above-named company and others to recover for labor performed for said company by him and by others whose claims have been assigned to him. In the superior court of Sierra County, Cal., a judgment was rendered for the plaintiff in the sum of \$5,039.57 and \$400 attorneys' fees, and declaring the same to be a first lien upon all the property of said company, as described in the complaint, and that all of said property, or so much thereof as might be necessary, should be sold to pay the judgment, costs, and attorneys' fees, as provided in chapter 170, acts of California of 1897, approved March 29, 1897.

The defendant company appealed the case to the supreme court of the State and a commissioners' decision was rendered therein November 20, 1899, reversing the decision of the lower court in part and declaring the above-named act to be unconstitutional and void.

From the opinion of Commissioner Cooper, concurred in by Commissioners Haynes and Chipman, and approved by the court, the following is taken:

The plaintiff claims the benefit of the provisions of said act [chapter 170, acts of 1897, above referred to] applicable to this case, and the

defendants contest the said provisions and every part of said act as being unconstitutional. The statute is said to contravene the following provisions of the constitution of the State: (1) Subdivision 13, sec. 1, art. 1: "No person shall be deprived of life, liberty or property without due process of law." (2) Subdivision 21, id.: "Nor shall any citizen or class of citizens be granted privileges or immunities which, upon the same terms, shall not be granted to all citizens." (3) Subdivision 11, id.: "All laws of a general nature shall have a uniform operation." (4) Section 25, art. 4, providing that the legislature shall not pass local or special laws in the following cases: "Third. Regulating the practice of courts of justice." "Twenty-fourth. Authorizing the creation, extension or impairing of liens." "Thirty-third. In all other cases where a general law can be made applicable." (5) Fourteenth amendment to the Constitution of the United States: "Nor shall any State deny to any person within its jurisdiction the equal protection of the laws."

It will be observed that the act in question applies only to two classes of persons: First, corporations doing business in this State, and not to corporations of any other class; second, to laborers performing labor for such corporations. It does not apply to the thousands of laborers who may be employed by individuals or copartnerships in the many and varied industries of the State. The word "corporation" in the act means those artificial persons created and existing under the laws of this or some other State; but the word "corporation," as to the rights of defendants, must be treated as though it means the name of all the individuals who are members of the corporation. It has long been settled that the word "person," within the meaning of the fourteenth amendment to the Constitution of the United States, applies to a corporation. In Cooley on Constitutional Limitations (6th ed., p. 483) it is said: "But everyone has a right to demand that he be governed by general rules; and a special statute which, without his consent, singles his case out as one to be regulated by a different law from that which is applied in all similar cases, would not be legitimate legislation, but would be such an arbitrary mandate as is not within the province of free governments. Those who make the laws are to govern by promulgated established laws, not to be varied in particular cases, but to have one rule for rich and poor, for the favorite at court and the countryman at plow. This is a maxim in constitutional law, and by it we may test the authority and binding force of legislative enactment." In *Wally's Heirs v. Kennedy*, 2 Yerg., 554, it is said: "The rights of every individual must stand or fall by the same rule or law that governs every other member of the body politic, or land, under similar circumstances; and every partial or private law which directly proposes to destroy or affect individual rights, or does the same thing by affording remedies leading to similar consequences, is unconstitutional and void. Were it otherwise, odious individuals and corporations would be governed by one law, the mass of the community and those who made the law by another, whereas the like general law affecting the whole community equally could not have been passed." Applying these principles to this act, it is clearly unconstitutional. It gives a first lien to laborers for the amount due them from corporations doing business in this State upon all the real and personal property of such corporations, and does not even require any description of the property, or notice in any manner, in order to make such lien

valid. It seems to give the laborer the right to an attachment against the property of the corporation without requiring him to make the affidavit and file the undertaking required of all other persons in order to procure such attachment. It does not give this lien to any other class of laborers.

The lien attaches to the property of such corporation, but not to the property of an individual under precisely the same circumstances. Under general law liens are given to all mechanics, artisans, laborers, or material men, and against all persons and corporations. Under the present statute a lien is given to laborers performing labor for the particular corporations named. All other persons in the State, after obtaining an ordinary money judgment, must enforce it by the writ of execution; but laborers for such corporations under this statute have the right to have the court declare the amount found due them a lien on all the property of the corporation, which shall take preference over all other liens except recorded mortgages and deeds of trust.

The statute gives the laborer a right, in case he recovers judgment, to recover attorneys' fees, which become a part of the judgment. No other class of laborers or persons are given the right to recover attorney's fees except by virtue of a contract or by virtue of a general statute. The corporation is prohibited from setting up any defense to the action except some two or three. Matters which might be pleaded as a defense by all other persons in the State are not allowed to be so pleaded by the corporation. If the legislature could deprive the corporation of some of the defenses which other litigants on like terms are allowed, it could, by a Draconian edict, deprive it of all of them, and say at once that the corporation should make no defense whatever to the action. The corporation and the laborer are prohibited from making any contract whereby wages are to become due for a longer period than 1 month as a condition of employment, or by which the laborer is to be paid in anything except money or negotiable checks. The workingman of intelligence is treated as an imbecile. Being over 21 years of age, and not a lunatic or insane, he is deprived of the right to make a contract as to the time when his wages shall become due. Being of sound mind, and knowing the value of a horse, he is not allowed to make an agreement with the corporation that he will work 60 days and take the horse in payment. Business might be such that a corporation could not possibly pay wages without getting laborers who were willing to wait for their wages until the corporation could get money with which to pay them by marketing its products. The laborer might be interested in the corporation, or for some reason willing to wait until the corporation could pay him. Yet the parties, being able to contract and willing to contract, and desiring for the good of each other to contract, are by this statute forbidden to do so. Not only this, but the corporation shall be subject to a fine of not less than \$50 for each violation of the statute. A corporation employing 1,000 men, and sued by each, could not defend the suits without being limited in its defense to those named in the statute, and being subject to a reasonable attorney's fee in each case. In case it made a contract with the 1,000 men by which they agreed to work for it 3 months for \$100 each, they could bring suit, and recover, before the end of the 3 months, and each recover an attorney's fee, making 1,000 attorney's fees, and the corporation would be subject to 1,000 fines of \$100 each, making the modest sum of \$100,000 in fines; or perhaps the

magistrate might, in his discretion, make the fine \$50 in each case, and thus reduce it to \$50,000. We might enumerate many other infirmities in the statute, but the above are sufficient to destroy it.

It is claimed that corporations are a class, and that classifications can be made, and that a law is not unconstitutional if it affects all of a class. While this is true, yet the classification must be founded upon differences either defined by the Constitution or natural, or which will suggest a reason which might naturally be held to justify the diversity of legislation. In this case there can be no reason why a corporation doing business in this State should have its property subjected to a lien unless the property of other persons in the State under like circumstances is subjected to the same kind of a lien; or why such corporations should be prohibited from making defenses which all other persons in the State may make; or why such corporations should pay attorneys' fees or fines in an ordinary action at law, while all other persons under like circumstances are exempt from such attorneys' fees and fines; or why such corporations can not create valid liens upon its property other than by a deed or mortgage duly recorded, while all other persons in the State may do so; or why such corporations shall be denied the privilege of making a contract as to the manner of payment of its employees, while all other persons in the State who are over 21 years of age, and not incompetent, may do so; or why laborers can not make a valid contract as to the time when their wages shall become due, or the kind of property or money in which they shall be paid. It is said that, corporations being creatures of the State, and deriving their powers from their charters, the same power that created them may alter or amend their charters, or deprive them of rights originally given them. This is true as to certain purposes, but the legislature can not, after creating a corporation, and while it exists, deprive it of the rights guaranteed to it by the Federal Constitution, nor deprive it of its right to resort to the courts of law, nor take its property without due process of law, nor subject it to unequal and oppressive burdens, nor deprive it of the equal protection of the laws.

But the act in question applies not only to the corporations existing under the laws of this State, but to all other corporations doing business in this State, and in nowise indebted to the State for their charters. Surely, the legislature of this State could not alter, amend, or repeal the charter of a corporation existing under the laws of another State.

That portion of the judgment in favor of plaintiff and against the defendant corporation for \$5,039.57, with costs, should be affirmed. The portion awarding the plaintiff \$400 attorney's fees, and declaring that the plaintiff is entitled to a lien upon the property of defendant corporation, and to have a commissioner appointed to sell the property, should be reversed.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—FELLOW-SERVANTS—NEGLIGENCE—CONSTRUCTION OF STATUTE—*Linck's Administrator v. Louisville and Nashville Railroad Co.*, 54 *Southwestern Reporter*, page 184.—This was an action for damages for causing the death of Edward B. Linck, brought in the circuit court of Todd County, Ky. Linck was a conductor in the employ of the above-

named railroad company, and at the time of the accident he was making a coupling of some cars in the train in place of the brakeman, who was temporarily and necessarily absent. The alleged negligence was that of the engineer of the train in backing the engine with great and unnecessary violence, so that the coupling link broke, and Linck was knocked down and run over by the backing train and killed. A judgment was rendered for the defendant company and the plaintiff appealed the case to the court of appeals of the State, which rendered its decision December 8, 1899, and reversed the decision of the lower court.

In the course of the opinion of the court, delivered by Judge White, the following language was used:

Beginning with the case of *Railroad Co. v. Collins*, 2 Duv. 118, this court, by a long and unbroken line of decisions, including *Railway Co. v. Palmer*, 98 Ky. 382, 33 S. W. 199, and *Edmonson v. Railway Co.*, 49 S. W. 200, 448, has repeatedly held that where two servants of the same master are equal, and neither superior to the other, no recovery can be had, as against the master, by one servant for the negligence of the other. It has also been held that where two servants are in the same field of labor, but are not of the same rank, the master is not liable for an injury to the subordinate by the ordinary negligence of the superior, but is liable only in case of gross negligence of the superior. It is contended that if the rule laid down in the *Edmonson* case, and other cases to the same effect, were [was?] the law as to the cases there decided, it has no application to this; that by the adoption of section 241 of our present constitution the rule of law as to fellow-servants was changed. Section 241 of the constitution reads: "Whenever the death of a person shall result from an injury inflicted by negligence or wrongful act, then, in every such case, damages may be recovered for such death, from the corporation and persons so causing same." There follows a provision as to who may prosecute an action to recover.

It is insisted that by the use of the term, "then, in every such case, damages may be recovered for such death, from the corporation and persons so causing same," it is meant to provide that a recovery may be had for a death resulting from the negligence of a fellow-servant, regardless of grade or degree of negligence. In considering this section, it may be well to consider the condition of the law as laid down by this court at the time of the adoption of the constitution. Under section 1 of chapter 57 of the General Statutes, it had been held, as in the *Collins* case, 2 Duv. 118, that damages were not recoverable by an employee of a railroad for an injury inflicted by the negligence of a fellow-servant. And a fellow-servant was held to be a servant of the same master, in the same field of labor, and of an equal grade with the one injured. It was also held that no recovery could be had for the ordinary negligence of a superior servant of the same master engaged in the same field of labor. Under section 3 of chapter 57 of the General Statutes it had been held that no recovery could be had for death unless the deceased left a widow or child. The debates of the constitutional convention (pages 5749-5752) show that it was intended to place in the organic law, and beyond the control of the legislature, that

an action for damages resulting in death survived, and might be recovered by the personal representative, regardless of whether widow or children survived. It was intended to provide, also, that the right of action could be maintained against both the servant who was negligent and the company he represented. The framers of the constitution intended to so fix the law that the legislature could not release either the servant who was negligent or the company.

It is true that, as the statute then stood, the changes made by the constitution amounted, as we see it, to but two things: It provided for a survival of the action, regardless of the fact whether decedent left a widow or child, and also provided for a recovery by a servant against his master for the ordinary negligence of a superior servant; whereas, in the first there was no survival of the action without a widow or child, and in the second the negligence of the superior servant must have been gross. But, to be plain that this is the law as intended, by the first legislature that assembled after the adoption of the constitution, and which contained many members of the convention, section 6 of the Kentucky statutes was enacted. It provides: "Whenever the death of a person shall result from an injury inflicted by negligence or wrongful act, then in every such case, damages may be recovered for such death from the person or persons, company or companies, corporation or corporations, their agents or servants causing the same, and when the act is willful or the negligence gross, punitive damages may be recovered and the action to recover such damages shall be prosecuted by the personal representative of the deceased."

This statute clearly provides that, where death is caused by negligence or wrongful act, the cause of action survives; where the negligence is ordinary, compensatory damages may be recovered; where the negligence is gross, or the act willful, punitive damages may be recovered; that such action may be maintained against the immediate person guilty of the wrongful act or of the negligence, as well as against any person, company, or corporation represented by such person inflicting the injury. It is insisted in the case at bar that, under the constitution and the above statute, appellant has shown a right to recover. If this action was against the engineer whose alleged negligence caused the injury, counsel would be correct; but as to appellee company such is not the law, for the reason that, as between the defendant and the engineer, the engineer did not represent the company. If it be conceded that the engineer was the equal in service with decedent, then as to decedent the engineer could not represent the common principal. The fact that decedent at the time was performing the duties of brakeman did not change his character or position as conductor. Although the brakeman, if injured under the same circumstances, might have recovered of appellee, yet decedent can not, because as to him there was no agent of the company guilty, or charged to be guilty, of negligence.

DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY—ASSUMPTION OF RISK BY EMPLOYEES—*Van Duzen Gas and Gasoline Engine Co. v. Schelies*, 55 *Northeastern Reporter*, page 998.—Action was brought against the above-named company by one Schelies for the recovery of damages arising from a

personal injury averred to have been caused by the negligence of the defendant, the plaintiff at the time being in the employ of said defendant as a servant. In the circuit court of Hamilton County, Ohio, a judgment was rendered for the plaintiff, and the defendant company carried the case upon a writ of error to the supreme court of the State, which rendered its decision December 19, 1899, and affirmed the judgment of the lower court.

The opinion of the supreme court was delivered by Judge Minshall, and the syllabus of the same, prepared by the court, reads as follows:

1. A servant assumes only such risks incident to his employment as will happen in the ordinarily careful management of the business of the master. Such as arise from the fault of the master are not assumed, and the servant may recover for injuries therefrom unless his own fault contributed to the accident.

2. One who, as a servant, does that in his employment which he is ordered to do by his master, and is injured by the culpable negligence of the latter, is not deprived of a right to recover for the injury by the fact that it was apparently dangerous, if a person of ordinary prudence would, under the circumstances, have obeyed the order, provided he used ordinary care in obeying it.

3. In such a case the question is one of fact for the jury, under proper instructions from the court.

4. A servant was called by the foreman of a common master to assist him in the adjustment of a machine, and was ordered to do a certain thing in connection with the work. This, to the knowledge of the servant, was dangerous; but he had a short time before done substantially the same thing under the foreman's order without accident. The danger arose from the proximity of a revolving saw that, by the culpable negligence of the master, was not protected. The servant obeyed the order, using ordinary care, but his clothing was caught by the saw and he was seriously injured. The court left it to the jury to say whether, under all the circumstances, the risk of injury was so great that no ordinarily prudent man would have obeyed the order, and that, if they found that it was, they should return a verdict for the defendant, and, if not, they should return a verdict for the plaintiff. *Held*, that the jury was properly instructed.

EMPLOYERS' LIABILITY — RAILROAD COMPANIES — VALIDITY AND EFFECT OF A RELEASE FROM LIABILITY—*Jossey v. Georgia Southern and Florida Ry. Co.*, 34 *Southeastern Reporter*, page 664.—R. M. Jossey brought suit against the above-named railway company, in which he sought to rescind a contract signed by him, releasing such company from liability for a personal injury sustained by him, and to recover damages from the defendant for such injury. In the superior court of Dooly County, Ga., where the suit was heard, a judgment was rendered in favor of the defendant company and the plaintiff took the case upon a writ of error before the supreme court of the State,

which rendered its decision December 8, 1899, and sustained the action of the lower court.

The opinion of the court was delivered by Judge Fish, and the syllabus of the same, which was prepared by the court, reads as follows:

One who signs a contract, which recites that, in consideration of a stated sum paid him by a railroad company, he releases it from all liability for a personal injury, which he contends was caused by its negligence, will be estopped from claiming that the release is not binding upon him, because he thought, when he signed the contract, that it related only to the time he lost in consequence of the injury, and did not cover damages caused thereby, when it appears that no fraud of any kind was practiced upon him, and that, having ample opportunity and capacity to read and understand the contract before he signed it, he negligently failed to do so.

LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE JANUARY 1, 1896.

[The Second Special Report of the Department contains all laws of the various States and Territories and of the United States relating to labor in force January 1, 1896. Later enactments are reproduced in successive issues of the Bulletin from time to time as published.]

ILLINOIS.

ACTS OF 1899.

Arbitration of labor disputes.

(Page 75.)

SECTION 1. Section 3 of "An act to create a State board of arbitration for the investigation or settlement of differences between employers and their employees, and to define the powers and duties of said board," approved August 2, 1895, [shall] be amended so as to read as follows:

§ 3. Said application shall be signed by said employer or by a majority of his employees in the department of the business in which the controversy or difference exists, or by both parties, and shall contain a concise statement of the grievances complained of, and a promise to continue on in business or at work without any lockout or strike until the decision of said board, if it shall be made within three weeks of the date of filing said application. As soon as may be after the receipt of said application the secretary of said board shall cause public notice to be given of the time and place of the hearing thereon; but public notice need not be given when both parties to the controversy join in the application and present therewith a written request that no public notice be given. When such request is made notice shall be given to the parties interested in such manner as the board may order, and the board may, at any stage of the proceedings, cause public notice to be given, notwithstanding such request. The board in all cases shall have power to summon as witnesses any operative or expert in the department of business affected, and any person who keeps the records of wages earned in those departments, or any other person, and to examine them under oath, and to require the production of books containing the records of wages paid and such other books and papers as may be deemed necessary to a full and fair investigation of the matter in controversy. The board shall have power to issue subpoenas, and oaths may be administered by the chairman of the board. If any person, having been served with a subpoena or other process issued by such board, shall willfully fail or refuse to obey the same, or to answer such questions as may be propounded touching the subject matter of the inquiry or investigation, it shall be the duty of the circuit court or the county court of the county in which the hearing is being conducted, or of the judge thereof, if in vacation, upon application by such board, duly attested by the chairman and secretary thereof, to issue an attachment for such witness and compel him to appear before such board and give his testimony or to produce such books and papers as may be lawfully required by said board; and the said court, or the judge thereof, shall have power to punish for contempt, as in other cases of refusal to obey the process and order of such court.

SEC. 2. There [shall] be inserted after section 5 of said act the following sections:

§ 5a. In the event of a failure to abide by the decision of said board in any case in which both employer and employees shall have joined in the application, any person or persons aggrieved thereby may file with the clerk of the circuit court or the county court of the county in which the offending party resides, or in the case of an employer in the county in which the place of employment is located, a duly authenticated copy of such decision, accompanied by a verified petition reciting the fact that such decision has not been complied with and stating by whom and in what respects it has been disregarded. Thereupon the circuit court or the county court (as the case may be) or the judge thereof, if in vacation, shall grant a rule against the party

or parties so charged to show cause within ten days why such decision has not been complied with, which shall be served by the sheriff as other process. Upon return made to the rule, the court, or the judge thereof if in vacation, shall hear and determine the questions presented, and to secure a compliance with such decision, may punish the offending party or parties for contempt, but such punishment shall in no case extend to imprisonment.

§5b. Whenever two or more employers engaged in the same general line of business, employing in the aggregate not less than twenty-five persons, and having a common difference with their employees, shall, cooperating together, make application for arbitration, or whenever such application shall be made by the employees of two or more employers engaged in the same general line of business, such employees being not less than twenty-five in number, and having a common difference with their employers, or whenever the application shall be made jointly by the employers and employees in such a case, the board shall have the same powers and proceed in the same manner as if the application had been made by one employer, or by the employees of one employer, or by both.

Sec. 3. There [shall] be inserted after section 6 of said act, the following section:

§6a. It shall be the duty of the mayor of every city, and the president of every incorporated town or village, whenever a strike or lockout involving more than twenty-five employees shall be threatened, or has actually occurred within or near such city, incorporated town or village, to immediately communicate the fact to the State board of arbitration, stating the name or names of the employer or employers and of one or more employees, with their post-office addresses, the nature of the controversy or difference existing, the number of employees involved and such other information as may be required by the said board. It shall be the duty of the president or chief executive officer of every labor organization, in case of a strike or lockout, actual or threatened, involving the members of the organization of which he is an officer, to immediately communicate the fact of such strike or lockout to the said board with such information as he may possess touching the differences or controversy, and the number of employees involved.

Sec. 4. Whereas, an emergency exists, therefore this act shall take effect and be in force from and after its passage.

Approved, April 12, 1899.

Deception, unlawful force, etc., in procuring employees.

(Page 139.)

SECTION 1. It shall be unlawful for any person, persons, company, corporation, society, association or organization of any kind doing business in this State, by himself, themselves, his, its or their agents or attorneys, to induce, influence, persuade or engage workmen to change from one place to another in this State, or to bring workmen of any class or calling into this State to work in any of the departments of labor in this State, through or by means of false or deceptive representations, false advertising or false pretenses concerning the kind and character of the work to be done, or amount and character of the compensation to be paid for such work, or the sanitary or other conditions of the employment, or as to the existence or nonexistence of a strike or other trouble pending between employer and employees, at the time of or prior to such engagement. Failure to state in any advertisement, proposal or contract for the employment of workmen that there is a strike, lockout or other labor troubles at the place of the proposed employment, when in fact such strike, lockout or other labor trouble then actually exists at such place, shall be deemed as false advertisement and misrepresentation for the purposes of this act.

Sec. 2. Any person or persons, company, corporation, society, association or organization of any kind doing business in this State, as well as his, their or its agents, attorneys, servants or associates, found guilty of violating section 1 of this act, or any part thereof, shall be fined not exceeding two thousand dollars or confined in the county jail not exceeding one year, or both, where the defendant or defendants is or are a natural person or persons.

Sec. 3. Any person or persons who shall, in this or another State, hire, aid, abet or assist in hiring, through agencies or otherwise, persons to guard with arms or deadly weapons of any kind other persons or property in this State, or any person or persons who shall come into this State armed with deadly weapons of any kind for any such purpose, without a permit in writing from the governor of this State, shall be guilty of a felony, and on conviction thereof shall be imprisoned in the penitentiary not less than one year nor more than five years: *Provided*, That nothing contained in this act shall be construed to interfere with the right of any person, persons, or company, corporation, society, association or organization in guarding or protect-

ing their private property or private interests as is now provided by law; but this act shall be construed only to apply in cases where workmen are brought into this State, or induced to go from one place to another in this State, by any false pretenses, false advertising or deceptive representations, or brought into this State under arms, or removed from one place to another in this State under arms.

SEC. 4. Any workman of this State, or any workman of another State who has or shall be influenced, induced or persuaded to engage with any persons mentioned in section 1 of this act, through or by means of any of the things therein prohibited, each of such workmen shall have a right of action for recovery of all damages that each of such workmen has sustained in consequence of the false or deceptive representations, false advertising and false pretenses used to induce him to change his place of employment, against any person or persons, corporations, companies or associations directly or indirectly causing such damages; and, in addition to all actual damages such workmen may have sustained, shall be entitled to recover such reasonable attorney's fees as the court shall fix, to be taxed as costs in any judgment recovered.

Approved April 24, 1899.

Free employment agencies.

(Page 268.)

[NOTE.—This act, approved April 11, 1899, was published in the Department of Labor Bulletin No. 22, page 491, and is therefore omitted here.]

Coal-mine regulations.

(Page 300.)

MAPS OR PLANS OF MINES.

SECTION 1. MAPS NECESSARY. (a) The operator of every coal mine in this State shall make, or cause to be made, an accurate map or plan of such mine, drawn to a scale not smaller than two hundred feet to the inch, and as much larger as practicable, on which shall appear the name of the State, county, and township in which the mine is located, the designation of the mine, the name of the company or owner, the certificate of the mining engineer or surveyor as to the accuracy and date of the survey, the north point and the scale to which the drawing is made.

SURFACE SURVEY. (b) Every such map or plan shall correctly show the surface boundary lines of the coal rights pertaining to each mine, and all section or quarter-section lines or corners within the same; the lines of town lots and streets; the tracks and side tracks of all railroads, and the location of all wagon roads, rivers, streams, ponds, buildings, landmarks and principal objects on the surface.

UNDERGROUND SURVEY. (c) For the underground workings said maps shall show all shafts, slopes, tunnels or other openings to the surface or to the workings of a contiguous mine; all excavations, entries, rooms and crosscuts; the location of the fan or furnace and the direction of the air currents; the location of pumps, hauling engines, engine planes, abandoned works, fire walls and standing water; and the boundary line of any surface outcrop of the seam.

MAP FOR EVERY SEAM. (d) A separate and similar map, drawn to the same scale in all cases, shall be made of each and every seam, which, after the passage of this act, shall be worked in any mine, and the maps of all such seams shall show all shafts, inclined planes, or other passageways connecting the same.

SEPARATE MAP FOR THE SURFACE. (e) A separate map shall also be made of the surface whenever the surface buildings, lines or objects are so numerous as to obscure the details of the mine workings if drawn upon the same sheet with them, and in such case the surface map shall be drawn on transparent cloth or paper, so that it can be laid upon the map of the underground workings, and thus truly indicate the local relation of lines and objects on the surface to the excavations of the mine.

THE DIP. (f) Each map shall also show by profile drawing and measurements, in feet and decimals thereof, the rise and dip of the seam from the bottom of the shaft in either direction to the face of the workings.

COPIES FOR INSPECTORS AND RECORDERS. (g) The originals or true copies of all such maps shall be kept in the office at the mine, and true copies thereof shall be furnished to the State inspector of mines for the district in which said mine is located, and shall be filed in the office of the recorder of the county in which the mine is located, within thirty days after the completion of the same. The maps so delivered to the inspector shall be the property of the State and shall remain in the custody of said inspector during his term of office, and be delivered by him to his successor in office; they shall be kept at the office of the inspector and be open to

the examination of all persons interested in the same, but such examination shall only be made in the presence of the inspector, and he shall not permit any copies of the same to be made without the written consent of the operator or the owner of the property.

ANNUAL SURVEYS. (h) An extension of the last preceding survey of every mine in active operation shall be made once in every twelve months prior to July 1, of every year, and the results of said survey, with the date thereof, shall be promptly and accurately entered upon the original maps and all copies of the same, so as to show all changes in plan or new work in the mine, and all extensions of the old workings to the most advanced face or boundary of said workings, which have been made since the last preceding survey. The said changes and extensions shall be entered upon the copies of the maps in the hands of the said inspector and recorder, within thirty days after the last survey is made.

ABANDONED MINES. (i) When any coal mine is worked out or is about to be abandoned or indefinitely closed, the operator of the same shall make or cause to be made a final survey of all parts of such mine, and the results of the same shall be duly extended on all maps of the mine and copies thereof, so as to show all excavations and the most advanced workings of the mine and their exact relation to the boundary or section lines on the surface.

SPECIAL SURVEY. (j) The State inspector of mines may order a survey to be made of the workings of any mine, and the results to be extended on the maps of the same and the copies thereof, whenever, in his judgment, the safety of the workmen, the support of the surface, the conservation of the property or the safety of an adjoining mine requires it.

PENALTY FOR FAILURE. (k) Whenever the operator of any mine shall neglect or refuse, or, for any cause not satisfactory to the mine inspector, fail, for the period of three months, to furnish to the said inspector and recorder, the map or plan of such mine or a copy thereof, or of the extensions thereto, as provided for in this act, the inspector is hereby authorized to make or cause to be made, an accurate map or plan of such mine at the expense of the owner thereof, and the cost of the same may be recovered by law from the said operator in the same manner as other debts by suit in the name of the inspector and for his use, and a copy of the same shall be filed by him with said recorder.

THE MAIN SHAFT.

SEC. 2. SINKING SUBJECT-TO INSPECTION. (a) Any shaft in process of sinking, and any opening projected for the purpose of mining coal, shall be subject to the inspection of the State inspector of mines for the district in which said shaft or opening is located.

PASSAGEWAY AROUND THE BOTTOM. (b) At the bottom of every shaft and at every caging place therein, a safe and commodious passageway must be cut around said landing place to serve as a traveling way by which men or animals may pass from one side of the shaft to the other without passing under or on the cage.

GATES AT THE TOP. (c) The upper and lower landings at the top of each shaft, and the opening of each intermediate seam from or to the shaft, shall be kept clear and free from loose materials, and shall be securely fenced with automatic or other gates, so as to prevent either men or materials from falling into the shaft.

GENERAL EQUIPMENT. (d) Every hoisting shaft must be equipped with substantial cages fitted to guide rails running from the top to the bottom. Said cages must be safely constructed; they must be furnished with suitable boiler-iron covers to protect persons riding thereon from falling objects; they must be equipped with safety catches. Every cage on which persons are carried must be fitted up with iron bars or rings in proper place and sufficient number to furnish a secure hand-hold for every person permitted to ride thereon. At the top landing cage supports, where necessary, must be carefully set and adjusted so as to act automatically and securely hold the cages when at rest.

THE ESCAPEMENT SHAFT.

SEC. 3. TWO PLACES OF EGRESS. (a) For every coal mine in this State, whether worked by shaft, slope or drift, there shall be provided and maintained, in addition to the hoisting shaft, or other place of delivery, a separate escapement shaft or opening to the surface, or an underground communicating passageway between every such mine and some other contiguous mine, such as shall constitute two distinct and available means of egress to all persons employed in such coal mine.

The time allowed for completing such escapement shaft or making such connec-

tions with an adjacent mine, as is required by the terms of this act, shall be three months for shafts 200 feet or less in depth, and six months for shafts less than 500 feet and more than 200 feet, and nine months for all other mines, slopes or drifts or connections with adjacent mines. The time to date in all cases from the hoisting of coal from the main shaft.

UNLAWFUL TO EMPLOY MORE THAN TEN MEN. (b) It shall be unlawful to employ at any one time more men than in the judgment of the inspector is absolutely necessary, for speedily completing the connections with the escapement shaft or adjacent mine; and said number must not exceed ten men at any one time for any purpose in said mine until such escapement or connection is completed.

PASSAGEWAYS TO ESCAPEMENT. (c) Such escapement shaft or opening, or communication with a contiguous mine as aforesaid, shall be constructed in connection with every seam of coal worked in such mine, and all passageways communicating with the escapement shaft or place of exit, from the main hauling ways to said place of exit, shall be maintained free of obstruction at least five feet high and five feet wide. Such passageways must be so graded and drained that it will be impossible for water to accumulate in any depression or dip of the same, in quantities sufficient to obstruct the free and safe passage of men. At all points where the passageway to the escapement shaft, or other place of exit, is intersected by other roadways or entries, conspicuous signboards shall be placed, indicating the direction it is necessary to take in order to reach such place of exit.

DISTANCE FROM MAIN SHAFT. (d) Every escapement shaft shall be separated from the main shaft by such extent of natural strata as may be agreed upon by the inspector of the district and the owner of the property, but the distance between the main shaft and escapement shaft shall not be less than 300 feet without the consent of the inspector, nor more than 300 feet without the consent of the owner.

BUILDINGS ON THE SURFACE. (e) It shall be unlawful to erect any inflammable structure or building in the space intervening between the main shaft and the escapement shaft on the surface, or any powder magazine, in such location or manner as to jeopardize the free and safe exit of the men from the mine, by said escapement shaft, in case of fire in the main shaft buildings.

STAIRWAYS OR CAGES. (f) The escapement shaft at every mine shall be equipped with safe and ready means for the prompt removal of men from the mine in time of danger, and such means shall be a substantial stairway set at an angle not greater than forty-five degrees, which shall be provided with hand-rails and with platforms or landings at each turn of the stairway.

In any escapement shaft which may, at the time of the passage of this act, be equipped with a cage for hoisting men, such cage must be suspended between guides and be so constructed that falling objects can not strike persons being hoisted upon it. Such cage must also be operated by a steam hoisting engine, which shall be kept available for use at all times, and the equipment of said hoisting apparatus shall include a depth indicator, a brake on the drum, a steel or iron cable, and safety catches on the cage.

OBSTRUCTIONS IN SHAFT. (g) No accumulations of ice nor obstructions of any kind shall be permitted in any escapement shaft, nor shall any steam or heated or vitiated air be discharged into said shaft; and all surface or other water which flows therein shall be conducted by rings or otherwise to receptacles for the same, so as to keep the stairways free from falling water.

WEEKLY INSPECTIONS. (h) All escapement shafts and the passageways leading thereto, or to the works of a contiguous mine, must be carefully examined at least once a week by the mine manager, or a man specially delegated by him for that purpose, and the date and findings of such inspections must be duly entered in the record book in the offices at the mine. If obstructions are found, their location and nature must be stated, together with the date at which they are removed.

COMMUNICATION WITH ADJACENT MINE. (i) When operators of adjacent mines have, by agreement, established underground communication between said mines, as an escapement outlet for the men employed in both, the roadways to the boundary on either side shall be regularly patrolled and kept clear of every obstruction to travel by the respective operators, and the intervening door shall remain unlocked and ready at all times for immediate use.

When such communication has been established between contiguous mines, it shall be unlawful for the operator of either mine to close the same without the consent both of the contiguous operator and of the State inspector for the district: *Provided*, That when either operator desires to abandon mining operations, the expense and duty of maintaining such communication shall devolve upon the party continuing operations and using the same.

THE ENGINE AND BOILER HOUSE.

SEC. 4. LOCATION. (a) Any building erected after the passage of this act, for the purpose of housing the hoisting engine or boilers at any shaft, shall be substantially fireproof, and no boiler house shall be nearer than 60 feet to the main shaft or opening or to any building or inflammable structure connecting therewith.

BRAKE ON DRUM. (b) Every hoisting engine shall be provided with a good and sufficient brake on the drum, so adjusted that it may be operated by the engineer without leaving his post at the levers.

FLANGES. (c) Flanges shall be attached to the sides of the drum of any engine used for hoisting men, with a clearance of not less than four inches when the whole rope is wound on the drum.

CABLE FASTENINGS. (d) The ends of the hoisting cables shall be well secured on the drum, and at least two and a half laps of the same shall remain on the drum when the cage is at rest at the lowest caging place in the shaft.

INDICATOR. (e) An index dial or indicator, to show at all times the true position of the cages in the shaft, shall be attached to every hoisting engine for the constant information and guidance of the engineer.

SIGNALS. (f) The code of signals as provided for in this act shall be displayed in conspicuous letters at some point in front of the engineer when standing at his post.

GAUGES. (g) Every boiler shall be provided with a steam gauge, except where two or more boilers are equipped and connected with a steam drum, properly connected with the boilers to indicate the steam pressure, and another steam gauge shall be attached to the steam pipe in the engine house, the two to be placed in such positions that both the engineer and fireman can readily see what pressure is being carried. Such steam gauges shall be kept in good order and adjusted and be tested as often at least as every six months.

SAFETY VALVES. (h) Every boiler or battery of boilers shall be provided with a safety valve of sufficient area for the escape of steam, and with weights and springs properly adjusted.

INSPECTION OF BOILERS. (i) All boilers used in generating steam in and about coal mines shall be kept in good order, and the operator of every coal mine where steam boilers are in use shall have said boilers thoroughly examined and inspected by a competent boiler maker or other qualified person, not an employee of said operator, as often as once in every six months, and oftener if the inspector shall deem it necessary, and the result of every such inspection shall be reported on suitable blanks to said inspector.

THE POWDER HOUSE.

SEC. 5. All blasting powder and explosive material must be stored in a fireproof building on the surface, located at a safe distance from all other buildings.

THE STATE MINING BOARD.

SEC. 6. MANNER AND PURPOSE OF APPOINTMENT. (a) For the purpose of securing efficiency in the mine inspection service, and a high standard of qualification in those who have the management and operation of coal mines, the State commissioners of labor shall appoint a board of examiners, to be known as the State mining board, whose duty it shall be to make formal inquiry into and pass upon the practical and technical qualifications and personal fitness of men seeking appointments as State inspectors of mines, and of those seeking certificates of competency as mine managers, as hoisting engineers and as mine examiners. This board shall be composed of five members, two of whom shall be practical coal miners; one an expert mining engineer, and who shall, when practicable, be also a hoisting engineer, and two shall be coal operators.

DATE AND TERM OF APPOINTMENT. (b) Their appointment shall date from July 1, 1899, and they shall serve for a term of two years, or until their successors are appointed and qualified; they shall organize by the election of one of their number as president, and some suitable person, not a member, as secretary, after which they shall all be sworn to a faithful performance of their duties.

SUPPLIES FURNISHED BY SECRETARY OF STATE. (c) The secretary of state shall assign to the use of the board suitably furnished rooms in the Statehouse for such meetings as are held at the capitol, and shall also furnish whatever blanks, blank books, printing and stationery the board may require in the discharge of its duties.

FREQUENCY OF MEETINGS. (d) The board shall meet at the capitol in regular session on the second Tuesday in September of the year 1899, and biennially thereafter, for nomination of candidates for appointment as State inspectors of mines. For the

examination of persons seeking certificates of competency as mine managers, hoisting engineers and mine examiners, the board shall hold meetings at such times and places within the State as shall, in the judgment of the members, afford the best facilities to the greatest number of probable candidates. Special meetings may also be called by the commissioners of labor, whenever, for any reason, it may become necessary to appoint one or more inspectors. Public notice shall be given through the press or otherwise, announcing the time and place at which examinations are to be held.

RULES OF PROCEDURE. (c) The examinations herein provided for shall be conducted under such rules, conditions and regulations as the members of the board shall deem most efficient for carrying into effect the spirit and intent of this act. Such rules, when formulated, shall be made a part of the permanent record of the board, and such of them as relate to candidates shall be published for their information and governance prior to each examination; they shall also be of uniform application to all candidates.

EXAMINATIONS.

SEC. 7. FOR INSPECTORS. (a) Persons coming before the State mining board as candidates for appointment as State inspectors of mines must produce evidence satisfactory to the board that they are citizens of this State, at least thirty years of age, that they have had a practical mining experience of ten years, and they are men of good repute and temperate habits; they must also submit to and satisfactorily pass an examination as to their practical and technical knowledge of mining engineering and mining machinery and appliances, of the proper development and operation of coal mines, of ventilation in mines, of the nature and properties of mine gases, of the geology of the coal measures in this State and of the laws of this State relating to coal mines.

NAMES CERTIFIED TO THE GOVERNOR. (b) At the close of each examination for inspectors the board shall certify to the governor the names of all candidates who have received a rating above the minimum fixed by the rules of the board as properly qualified for the duties of inspectors.

INSPECTORS APPOINTED. (c) From those so named the governor shall select and appoint seven State inspectors of mines, that is to say, one inspector for each of the seven inspection districts provided for in this act, or more, if, in the future, additional inspection districts shall be created, and their commissions shall be for a term of two years from October first: *Provided*, That any one who has satisfactorily passed two of the State examinations for inspectors and who has served acceptably as State inspector for two full terms, upon making written application to the board setting forth the facts, shall also be certified to the governor as a person properly qualified for appointment. But no man shall be eligible for appointment as a State inspector of mines who has any pecuniary interest in any coal mine, either as owner or employee.

FOR MINE MANAGERS. (d) Persons coming before the board for certificates of competency as mine managers must produce evidence satisfactory to the board that they are citizens of this State, at least twenty-four years of age, that they have had at least four years' practical mining experience, and that they are men of good repute and temperate habits; they must also submit to and satisfactorily pass such an examination as to their experience in mines and in the management of men, their knowledge of mine machinery and appliances, the use of surveying and other instruments, the properties of mine gases, the principles of ventilation and the specific duties and responsibilities of mine managers, as the board shall see fit to impose.

FOR HOISTING ENGINEERS. (e) Persons seeking certificates of competency as hoisting engineers must produce evidence satisfactory to the board that they are citizens of the United States, at least twenty-one years of age, that they have had at least two years' experience as fireman or engineer of a hoisting plant, and are of good repute and temperate habits. They must be prepared to submit to and satisfactorily pass an examination as to their experience in handling hoisting machinery, and as to their practical and technical knowledge of the construction, cleaning and care of steam boilers, the care and adjustment of hoisting engines, the management and efficiency of pumps, ropes and winding apparatus, and their knowledge of the laws of this State in relation to signals and the hoisting and lowering of men at mines.

FOR MINE EXAMINERS. (f) Persons seeking certificates of competency as mine examiners must produce evidence satisfactory to the board that they are citizens of this State, at least twenty-one years of age, and of good repute and temperate habits. They must be prepared to submit to and satisfactorily pass an examination as to their experience in mines generating dangerous gases, their practical and technical knowledge of the nature and properties of fire damp, the laws of ventilation, the structure and uses of the safety lamps, and the laws of this State relating to safeguards against fires from any source in mines.

CERTIFICATES.

SEC. 8. ISSUED BY THE BOARD. (a) The certificates provided for in this act shall be issued under the signatures and seal of the State mining board, to all those who receive a rating above the minimum fixed by the rules of the board; such certificates shall contain the full name, age and place of birth of the recipient, and the length and nature of his previous service in or about coal mines.

REGISTER TO BE PRESERVED. (b) The board shall make and preserve a record of the names and addresses of all persons to whom certificates are issued, and at the close of each examination shall make report of the same to the commissioners of labor, who shall cause a permanent register of all certificated persons to be made and kept for public inspection in the office of the State bureau of labor statistics in the State capitol.

EFFECT OF CERTIFICATES. (c) The certificates provided for in this act shall entitle the holders thereof to accept and discharge the duties for which they are thereby declared qualified, at any mine in this State, where their services may be desired.

FOREIGN CERTIFICATES. (d) The board may exercise its discretion in issuing certificates of any class, but not without examination, to persons presenting, with proper credentials, certificates issued by competent authority in other States.

UNLAWFUL TO EMPLOY OTHER THAN CERTIFICATED MINE MANAGERS. (e) It shall be unlawful for the operator of any coal mine to employ, or suffer to serve, as mine manager at his mine, any person who does not hold a certificate of competency issued by a duly authorized board of examiners of this State: *Provided*, That whenever an exigency arises by which it is impossible for any operator to secure the immediate services of a certificated mine manager, he may place any trustworthy and experienced man, subject to the approval of the State inspector of the district, in charge of his mine, to act as temporary mine manager for a period not exceeding thirty days.

UNLAWFUL TO EMPLOY OTHER THAN CERTIFICATED HOISTING ENGINEER. (f) It shall be unlawful for the operator of any mine to employ, or suffer to serve, as hoisting engineer for said mine, any person who does not hold a certificate of competency issued by a duly authorized board of examiners of this State, or to permit any other to operate his hoisting engine except for the purpose of learning to operate it, and then only in the presence of the certificated engineer in charge, and when men are not being hoisted or lowered: *Provided*, That whenever any exigency arises by which it is impossible for any operator to secure the immediate services of a certificated hoisting engineer, he may place any trustworthy and experienced man, subject to the approval of the State inspector of the district, in charge of his engines, to act as temporary engineer, for a period not to exceed thirty days.

UNLAWFUL TO EMPLOY OTHER THAN CERTIFICATED MINE EXAMINERS. (g) It shall be unlawful for the operator of any mine to employ, or suffer to serve, as mine examiner, any person who does not hold a certificate of competency issued by the State mining board: *Provided*, That anyone holding a mine manager's certificate may serve as mine examiner. Anyone holding a certificate as fire boss, on presentation of the same to the State mining board, may have it exchanged for a mine examiner's certificate.

CANCELLATION OF CERTIFICATES. (h) The certificate of any mine manager, hoisting engineer or mine examiner, may be cancelled and revoked by the State mining board whenever it shall be established to the satisfaction of said board that the holder thereof has become unworthy of official indorsement, by reason of violations of the law, intemperate habits, manifest incapacity, abuse of authority, or for other causes satisfactory to said board: *Provided*, That any person against whom charges or complaints are made shall have an opportunity to be heard in his own behalf. And he shall have thirty days' notice in writing of such charges.

FEES FOR EXAMINATIONS.

SEC. 9. An applicant for any certificate herein provided for, before being examined, shall register his name with the secretary of the board, and file with him the credentials required by this act, to wit: An affidavit as to all matters of fact establishing his right to receive the examination, and a certificate of good character and temperate habits signed by at least ten of the citizens who know him best in the place in which he lives.

Each candidate, before receiving the examination, shall pay to the secretary of the board the sum of one dollar as an examination fee, and those who pass the examination for which they are entered, before receiving their certificates, shall also pay to the secretary the further sum of two dollars each as a certificate fee. All such fees shall be duly accounted for by the board, and covered into the State treasury at the close of each fiscal year.

PAY FOR THE BOARD.

SEC. 10. The members of the State mining board shall receive as compensation for their services the sum of five dollars each per day, for a term not exceeding one hundred days in any one year, and whatever sums are necessary to reimburse them for such traveling expenses as may be incurred in the discharge of their duties.

The salary of the secretary shall be determined by the board, but shall in no case exceed the sum of one thousand dollars per annum, and he shall be reimbursed for any amounts expended for actual and necessary traveling expenses in the discharge of his duties. All such salaries and expenses of the board and of its secretary shall be paid upon vouchers duly sworn to by each and approved by the president of the board and by the governor, and the auditor of public accounts is hereby authorized to draw his warrants on the State treasurer for the amounts thus shown to be due, payable out of any money in the treasury not otherwise appropriated.

INSPECTION DISTRICTS.

SEC. 11. BOUNDARIES DEFINED. (a) The State shall be divided into seven inspection districts, as follows:

The first district shall be composed of the counties of Boone, McHenry, Lake, DeKalb, Kane, Dupage, Cook, LaSalle, Kendall, Grundy, Will, Livingston, and Kankakee.

The second district shall be composed of the counties of Jo Daviess, Stephenson, Winnebago, Carroll, Ogle, Whiteside, Lee, Rock Island, Henry, Bureau, Mercer, Stark, Putnam, Marshall, Peoria, and Woodford.

The third district shall be composed of the counties of Henderson, Warren, Knox, Hancock, McDonough, Schuyler, Fulton, Adams, and Brown.

The fourth district shall be composed of the counties of Tazewell, McLean, Ford, Iroquois, Vermilion, Champaign, Piatt, Dewitt, Macon, Logan, Menard, Mason, and Cass.

The fifth district shall be composed of the counties of Pike, Scott, Morgan, Sangamon, Christian, Shelby, Moultrie, Douglas, Coles, Cumberland, Clark, Edgar, Montgomery, Macoupin, Greene, Jersey, and Calhoun.

The sixth district shall be composed of the counties of Monroe, St. Clair, Madison, Bond, Clinton, Fayette, Marion, Effingham, Clay, Jasper, Richland, Crawford, and Lawrence.

The seventh district shall be composed of the counties of Washington, Jefferson, Wayne, Edwards, Wabash, White, Hamilton, Franklin, Perry, Randolph, Jackson, Williamson, Saline, Gallatin, Hardin, Pope, Johnson, Massac, Union, Alexander, and Pulaski.

HOW CHANGES MAY BE MADE. (b) *Provided*, That the commissioners of labor, may, from time to time, make such changes in the boundaries of said districts as may, in their judgment, be required in order to distribute more evenly the labors and expenses of the several inspectors of mines, but this provision shall not be construed as authorizing the board to increase the number of districts.

DUTIES OF INSPECTORS.

SEC. 12. BOND. (a) Those who receive appointment as State inspectors of mines must, before entering upon their duties as such, take an oath of office, as provided for by the constitution, and enter into a bond to the State in the sum of five thousand dollars, with sureties to be approved by the governor, conditioned upon the faithful performance of their duties in every particular, as required by this act; said bond, with the approval of the governor indorsed thereon, together with the oath of office, shall be deposited with the secretary of state.

INSTRUMENTS. (b) For the efficient discharge of the duties herein imposed upon them, each inspector shall be furnished at the expense of the State with an anemometer, a safety lamp, and whatever other instruments may be required in order to carry into effect the provisions of this act.

EXAMINATIONS OF MINES. (c) State inspectors of mines shall devote their whole time and attention to the duties of their office, and make personal examination of every mine within their respective districts, and shall see that every necessary precaution is taken to insure the health and safety of the workmen employed in such mines, and that the provisions and requirements of all mining laws of this State are faithfully observed and obeyed, and the penalties for the violation of the same promptly enforced.

AUTHORITY TO ENTER. (d) It shall be lawful for State inspectors to enter, examine and inspect any and all coal mines and the machinery belonging thereto, at all rea-

sonable times, by day or by night, but so as not to obstruct or hinder the necessary workings of such coal mine, and the operator of every such coal mine is hereby required to furnish all necessary facilities for making such examinations and inspection.

PROCEDURE IN CASE OF OBJECTION. (e) If any operator shall refuse to permit such inspection or to furnish the necessary facilities for making such examination and inspection, the inspector shall file his affidavit, setting forth such refusal, with the judge of the circuit court of said county in which said mine is situated, either in term time or vacation, or, in the absence of said judge, with the master in chancery in said county in which said mine is situated, and obtain an order on such owner, agent or operator so refusing as aforesaid, commanding him to permit and furnish such necessary facilities for the inspection of such coal mine, or to be adjudged to stand in contempt of court and punished accordingly.

NOTICES TO BE POSTED. (f) The State inspector of mines shall post up in some conspicuous place at the top of each mine visited and inspected by him, a plain statement of the condition of said mine, showing what in his judgment is necessary for the better protection of the lives and health of persons employed in said mine; such statement shall give the date of inspection and be signed by the inspector. He shall also post a notice at the landing used by the men, stating what number of men will be permitted to ride on the cage at one time, and at what rate of speed men may be hoisted and lowered on the cages. He must observe especially that a proper code of signals between the engineer and top man and bottom man is established and conspicuously posted for the information of all employees.

SEALER OF WEIGHTS. (g)—State inspectors of mines are hereby made ex officio sealer of weights and measures in their respective districts, and as such are empowered to test all scales used to weigh coal at coal mines. Upon the written request of any mine owner or operator, or of ten coal miners employed at any one mine, it shall be his duty to try and prove any scale or scales at such mine against which complaint is directed, and if he shall find that they or any of them do not weigh correctly he shall call the attention of the mine owner or operator to the fact, and direct that said scale or scales be at once overhauled and readjusted so as to indicate only true and exact weights, and he shall forbid the further operation of such mine until such scales are adjusted. In the event that such tests shall conflict with any test made by any county sealer of weights, or under and by virtue of any municipal ordinance or regulation, then the test by such mine inspector shall prevail.

TEST WEIGHTS. (h) For the purpose of carrying out the provisions of this act each inspector shall be furnished by the State with a complete set of standard weights suitable for testing the accuracy of track scales, and of all smaller scales at mines; said test weights to be paid for on bills of particulars, certified by the secretary of state and approved by the governor. Such test weights shall remain in the custody of the inspector for use at any point within his district, and for any amounts expended by him for the storage, transportation or handling of the same, he shall be fully reimbursed upon making entry of the proper items in his quarterly expense voucher.

INSPECTORS' ANNUAL REPORTS. (i) Each State inspector of mines shall, at the close of the official year, to wit: after June 30, of every year, prepare and forward to the secretary of the bureau of labor statistics a formal report of his acts during the year in the discharge of his duties, with any recommendations as to legislation he may deem necessary on the subject of mining, and shall collect and tabulate upon blanks furnished by said secretary all desired statistics of mines and miners within his district to accompany said annual report.

REPORTS TO BE PUBLISHED. (j) On the receipt of said inspectors' reports the secretary of the bureau of labor statistics shall proceed to compile and summarize the same as a report of said bureau, to be known as the Annual Coal Report, which shall be duly transmitted to the governor for the information of the general assembly and the public. The printing and binding of said reports shall be provided for by the commissioners of State contracts in like manner and in like number as they provide for the publication of other official reports to the governor.

The secretary of state shall furnish to said inspectors, upon the requisition of the secretary of the State bureau of labor statistics, whatever instruments, blanks, blank books, stationery, printing and supplies may be required by said inspectors in the discharge of their official duties; said instruments to be paid for on bills of particulars, certified by the secretary of state and approved by the governor.

It shall be the duty of every coal operator and every employer of labor in this State to afford to the State commissioners of labor, or their representatives, every facility for procuring statistics of the wages and condition of their employees for the purpose of compiling and publishing statistics of labor and of social and industrial conditions within the State as required by law. Any person who shall hinder or obstruct the investigation of the agents of the commissioners, or shall neglect or

refuse, for a period of ten days, to furnish the information called for by the schedules of the commissioners as provided above, shall be adjudged guilty of a misdemeanor and be subjected to a fine of one hundred dollars.

PAY OF INSPECTORS.

SEC. 13. Each State inspector of mines shall receive as compensation for his services, the sum of one thousand eight hundred dollars per annum, and for his traveling expenses the sum actually expended for that purpose, in the discharge of his official duties, both to be paid quarterly by the State treasurer, on warrants of the auditor of public accounts, from the funds in the treasury not otherwise appropriated; said expense vouchers shall show the items of expenditures in detail, with subvouchers for the same so far as it is practicable to obtain them. Said voucher shall be sworn to by the inspector and be approved by the secretary of the bureau of labor statistics and the governor.

REMOVAL OF INSPECTORS.

SEC. 14. Upon a petition signed by not less than three coal operators, or ten coal miners, setting forth that any State inspector of mines neglects his duties, or that he is incompetent, or that he is guilty of malfeasance in office, or guilty of any act tending to the injury of miners or operators of mines, it will be lawful for the commissioners of labor of this State to issue a citation to the said inspector to appear, at not less than fifteen days' notice on a day fixed, before them, when the said commissioners shall proceed to inquire into and investigate the allegations of the petitioners; and if the said commissioners find that the said inspector is neglectful of his duty, or that he is incompetent to perform the duties of said office, or that he is guilty of malfeasance in office, or guilty of any act tending to the injury of miners or operators of mines, the said commissioners shall declare the office of inspector of the said district vacant, and a properly qualified person shall be duly appointed, in the manner provided for in this act, to fill said vacancy.

COUNTY INSPECTORS.

SEC. 15. The county board of supervisors, or of commissioners in counties not under township organization, of any county in which coal is produced, upon the written request of the State inspector of mines for the district in which said county is located, shall appoint a county inspector of mines as assistant to such State inspector; but no person shall be eligible for appointment as county inspector who does not hold a State certificate of competency as mine manager, and the compensation of such county inspector shall be fixed by the county board at not less than three dollars per day, to be paid out of the county treasury.

The State inspector may authorize any county inspector in his district to assume and discharge all the duties and exercise all the powers of a State inspector in the county for which he is appointed, in the absence of the State inspector; but such authority must be conferred in writing and the county inspector must produce the same as evidence of his powers upon the demand of any person affected by his acts; and the bond of said State inspector shall be holden for the faithful performance of the duties of such assistant inspector.

DUTIES OF MINE MANAGERS AND MINERS.

SEC. 16. (a) The mine managers shall instruct employees as to their respective duties, and shall visit and examine the various working places in the mine as often as practicable. He shall always provide a sufficient supply of props, caps and timber delivered on the miners' cars at the usual place when demanded, as nearly as possible, in suitable lengths and dimensions for the securing of the roof by the miners, and it shall be the duty of the miner to properly prop and secure his place with materials provided therefor.

VENTILATION. (b) It shall be the duty of the mine manager to see that crosscuts are made at proper distances apart to secure the best ventilation at the face of all working places, and that all stoppings along air ways are properly and promptly built. He shall keep careful watch over all ventilating apparatus and the air currents in the mine, and in case of accident to fan or machinery by which the currents are obstructed or stopped, he shall at once order the withdrawal of the men and prohibit their return until thorough ventilation has been reestablished.

AIR CURRENTS AND OUTLET PASSAGEWAYS. (c) He shall measure or cause to be measured the air current with an anemometer at least once a week at the inlet and

outlet, and shall keep a record of such measurements for the information of the inspector. Once a week he shall make a special examination of the roadways leading to the escapement shaft or other opening for the safe exit of men to the surface, and shall make a record of any obstructions to travel he may encounter therein, together with the date of their removal.

HANDLING EXPLOSIVES. (d) He shall give special attention to and instructions concerning the proper storage and handling of explosives in the mine, and concerning the time and manner of placing and discharging the blasting shots, and it shall be unlawful for any miner to fire shots except according to the rules of the mine. In dusty mines he must see that all hauling roads are frequently and thoroughly sprinkled. He must also see that all dangerous places above and below are properly marked, and that danger signals are displayed wherever they are required.

CARE OF ROPES, CAGES, ETC. (e) The mine manager or superintendent must have special attention given to the condition of the hoisting ropes; they must be carefully and frequently scrutinized. Before the men are lowered in the morning the soundness of the ropes must be tested by hoisting the cages. He must also have the cages, safety catches, pumps, sumps and stables examined frequently; he must have the mine examined every morning by the mine examiner before the men are allowed to go to work, and know that the top man and bottom man are on duty, and that sufficient lights are maintained at the top and bottom landings when the men are being hoisted and lowered.

EARLY AND LATE DUTY. (f) The mine manager or his agent shall be at his post at the mine when the men are lowered into the mine in the morning for work; he shall by some device keep a record of the number of men lowered either for a day or night shift, and he or his agent shall remain at night until all the men employed during the day shall have been hoisted out.

MAY HAVE ASSISTANTS. (g) In mines in which the works are so extensive that all the duties devolving on the mine manager can not be discharged by one man, competent persons may be designated and appointed as assistants to the mine manager who shall exercise his functions, under his instructions.

DUTIES OF HOISTING ENGINEERS.

SEC. 17. CONSTANT ATTENDANCE. (a) The hoisting engineer at any mine shall be in constant attendance at his engine or boilers at all times when there are workmen underground.

OUTSIDERS EXCLUDED. (b) The engineer shall not permit anyone to enter or to loiter in the engine room, except those authorized by their position or duties to do so, and he shall hold no conversation with any officer of the company or other person while the engine is in motion or while his attention is occupied with the signals. A notice to this effect shall be posted on the door of the engine house.

CARE OF ENGINE AND BOILERS. (c) The engineer or some other properly authorized employee must keep a careful watch over the engines, boilers, pumps, ropes and winding apparatus. He must see that his boilers are properly supplied with water, cleaned and inspected at frequent intervals, and that the steam pressure does not exceed the limit established by the boiler inspector; he shall frequently try the safety valves and shall not increase the weights on the same; he shall observe that the steam and water gauges are always in good order, and if any of the pumps, valves or gauges become deranged or fail to act he shall promptly report the fact to the proper authority.

SIGNALS. (d) The engineer must thoroughly understand the established code of signals, and these must be delivered in the engine room in a clear and unmistakable manner, and when he has the signal that men are on the cage he must work his engine only at the rate of speed hereafter specified in this act.

HANDLING OF ENGINES. (e) The engineer shall permit no one to handle or meddle with any machinery under his charge, nor suffer anyone who is not a certificated engineer to operate his engine, except for the purpose of learning to operate it, and then only in the presence of the engineer in charge, and when men are not on the cage.

DUTIES OF MINE EXAMINERS.

SEC. 18. TO ENTER AND EXAMINE ALL PLACES. (a) A mine examiner shall be required at all mines. His duty shall be to visit the mine before the men are permitted to enter it, and, first, he shall see that the air current is traveling in its proper course and in proper quantity. He shall then inspect all places where men are expected to pass or to work, and observe whether there are any recent falls or obstructions in rooms or roadways, or accumulations of gas or other unsafe conditions. He

shall especially examine the edges and accessible parts of recent falls and old gobs and air-courses. As evidence of his examination of all working places, he shall inscribe on the walls of each, with chalk, the month and the day of the month of his visit.

TO POST DANGER NOTICES. (b) When working places are discovered in which accumulations of gas, or recent falls, or any dangerous conditions exist, he shall place a conspicuous mark thereat as notice to all men to keep out, and at once report his finding to the mine manager.

No one shall be allowed to remain in any part of the mine through which gas is being carried into the ventilating current, nor to enter the mine to work therein, except under the direction of the mine manager, until all conditions shall have been made safe.

TO MAKE DAILY RECORD. (c) The mine examiner shall make a daily record of the conditions of the mine, as he has found it, in a book kept for that purpose, which shall be preserved in the office for the information of the company, the inspector and all other persons interested, and this record shall be made each morning before the miners are permitted to descend into the mine.

VENTILATION.

SEC. 19. Throughout every coal mine there shall be maintained currents of fresh air sufficient for the health and safety of all men and animals employed therein, and such ventilation shall be produced by a fan, or some other artificial means.

AMOUNT OF AIR REQUIRED. (a) The quantity of air required to be kept in circulation and passing a given point shall be not less than 100 cubic feet per minute for each person, and not less than 600 cubic feet per minute for each animal in the mine, measured at the foot of the downcast, and this quantity may be increased at the discretion of the inspector whenever, in his judgment, unusual conditions make a stronger current necessary. Said currents shall be forced into every working place throughout the mine, so that all parts of the same shall be reasonably free from standing powder smoke and deleterious air of every kind.

MEASUREMENTS. (b) The measurement of the currents of air shall be taken with an anemometer at the foot of the downcast, at the foot of the upcast, and at the working face of each division or split of the air current. And a record of such measurements shall be made and preserved in the office, as elsewhere provided for in this act.

AIR CURRENTS TO BE SPLIT. (c) The main current of air shall be so split, or subdivided, as to give a separate current of reasonably pure air to every 100 men at work, and the inspector shall have authority to order separate currents for smaller groups of men, if, in his judgment, special conditions make it necessary.

VENTILATION OF STABLE. (d) The air current for ventilating the stable shall not pass into the intake air current for ventilating the working parts of the mine.

SELF-CLOSING DOORS. (e) All permanent doors in mines, used in guiding and directing the ventilating currents, shall be so hung and adjusted as to close automatically.

TRAPPERS. (f) At all principal doorways, through which cars are hauled, an attendant shall be employed for the purpose of opening and closing said doors when trips of cars are passing to and from the workings. Places for shelter shall be provided at such doorways to protect the attendants, from being injured by the cars, while attending to their duties.

CROSSCUTS. (g) Crosscuts shall be made not more than 60 feet apart, and no room shall be opened in advance of the air current.

STOPPINGS. (h) When it becomes necessary to close crosscuts connecting the inlet and outlet air courses in mines generating dangerous gases, the stoppings shall be built in a substantial manner with brick or other suitable building material laid in mortar or cement, if practicable, but in no case shall they be built of lumber, except for temporary purposes.

AUTHORITY OF INSPECTOR. (i) Whenever the inspector shall find men working without sufficient air, he shall at once give the mine manager or operator notice and a reasonable time in which to restore the current, and upon his or their refusal or neglect to act promptly, the inspector may order the endangered men out of the mine.

POWDER AND BLASTING.

SEC. 20. No blasting powder or other explosives shall be stored in any coal mine, and no workman shall have at any time more than one 25 pound keg of black powder in the mine, nor more than 3 pounds of high explosives.

PLACE AND MANNER OF STORING. (a) Every person who has powder or other

explosives in a mine, shall keep it or them in a wooden or metallic box or boxes securely locked, and said boxes shall be kept at least 10 feet from the track, and no two powder boxes shall be kept within 50 feet of each other, nor shall black powder and high explosives be kept in the same box.

MANNER OF HANDLING. (b) Whenever a workman is about to open a box or keg containing powder or other explosive, and while handling the same, he shall place and keep his lamp at least 5 feet distant from said explosive and in such position that the air current can not convey sparks to it, and no person shall approach nearer than 5 feet to any open box containing powder or other explosive with a lighted lamp, lighted pipe or other thing containing fire.

COPPER TOOLS. (c) In the process of charging and tamping a hole no person shall use any iron or steel pointed needle. The needle used in preparing a blast shall be made of copper and the tamping bar shall be tipped with at least 5 inches of copper. No coal dust nor any material that is inflammable or that may create a spark shall be used for tamping, and some soft material must always be placed next to the cartridge or explosive.

USE OF SQUIBS. (d) A miner who is about to explode a blast with a manufactured squib shall not shorten the match, saturate it with mineral oil nor ignite it except at the extreme end; he shall see that all persons are out of danger from the probable effects of such shot, and shall take measures to prevent any one approaching, by shouting "fire!" immediately before lighting the fuse.

NOT MORE THAN ONE SHOT AT A TIME. (e) Not more than one shot shall be ignited at the same time in any one working place, unless the firing is done by electricity or by fuses of such length that neither of the shots will explode in less than three minutes from the time they are lighted. When successive shots are to be fired in any working place in which the roof is broken or faulty, the smoke must be allowed to clear away and the roof must be examined and made secure between shots.

MISSSED SHOTS. (f) No person shall return to a missed shot until five minutes shall have elapsed, unless the firing is done by electricity, and then only when the wires are disconnected from the battery.

DUSTY MINES. (g) In case the galleries, roadways, or entries of any mine are so dry that the air becomes charged with dust, the operator of such mine must have such roadways regularly and thoroughly sprayed, sprinkled or cleaned, and it shall be the duty of the inspector to see that all possible precautions are taken against the occurrence of explosions which may be occasioned or aggravated by the presence of dust.

PLACES OF REFUGE.

SEC. 21. ENGINE PLANES. (a) On all single-track hauling roads wherever hauling is done by machinery, and on all gravity or inclined planes in mines, upon which the persons employed in the mine must travel on foot to and from their work, places of refuge must be cut in the side wall not less than 3 feet in depth and 4 feet wide, and not more than 20 yards apart, unless there is a clear space of at least 3 feet between the side of the car and the side of the road, which space shall be deemed sufficient for the safe passage of men.

On every such road which is more than 100 feet in length a code of signals shall be established between the hauling engineer and all points on the road.

A conspicuous light must be carried on the front car of every trip or train of pit cars moved by machinery, except when such trip is on an inclined plane.

MULE ROADS. (b) On all hauling roads or gangways on which the hauling is done by draft animals, or gangways whereon men have to pass to and from their work, places of refuge must be cut in the sidewall at least 2½ feet deep, and not more than 20 yards apart; but such places shall not be required in entries from which rooms are driven at regular intervals not exceeding 20 yards, and wherever there is a clear space of 2½ feet between the car and the rib, such space shall be deemed sufficient for the safe passage of men.

All places of refuge must be kept clear of obstructions, and no material shall be stored nor be allowed to accumulate therein.

BOYS AND WOMEN.

SEC. 22. No boy under the age of 14 years, and no woman or girl of any age shall be permitted to do any manual labor in or about any mine, and before any boy can be permitted to work in any mine he must produce to the mine manager or operator thereof an affidavit from his parent or guardian or next of kin, sworn and subscribed before a justice of the peace or notary public, that he, the said boy, is 14 years of

SIGNALS.

SEC. 23. At every mine operated by shaft and by steam power, means must be provided for communicating distinct and separate signals to and from the bottom man, the top man and the engineer. The following signals are prescribed for use at mines where signals are required:

From the bottom to the top. One bell shall signify to hoist coal or the empty cage, and also to stop either when in motion.

Two bells shall signify to lower cage.

Three bells shall signify that men are coming up; when return signal is received from the engineer, men will get on the cage and the cager shall ring one bell to start.

Four bells shall signify to hoist slowly, implying danger.

Five bells shall signify accident in the mine and a call for a stretcher.

Six bells shall call for a reversal of the fan.

From the top to the bottom. One bell shall signify: All ready, get on cage.

Two bells shall signify: Send away empty cage.

Provided, That the operator of any mine may, with the consent of the inspector, add to this code of signals in his discretion, for the purpose of increasing its efficiency or of promoting the safety of the men in said mine, but whatever code may be established and in use at any mine, must be conspicuously posted at the top and at the bottom and in the engine room for the information and instruction of all persons concerned.

WEIGHING AND WEIGHMAN.

SEC. 24. SCALES. (a) The operator of every coal mine where miners are paid by the weight of their output, shall provide at such mine suitable and accurate scales of standard manufacture for the weighing of such coal, and a correct record shall be kept of all coal so weighed, and said record shall be open at all reasonable hours to the inspection of miners and others interested in the product of said mine.

WEIGHMAN. (b) The person authorized to weigh the coal and keep the record as aforesaid shall, before entering upon his duties, make and subscribe to an oath before some person duly authorized to administer oaths, that he will accurately weigh and carefully keep a true record of all coal weighed, and such affidavit shall be kept conspicuously posted at the place of weighing.

CHECK WEIGHMAN. (c) It shall be permitted to the miners at work in any coal mine to employ a check weighman at their option and at their own expense, whose duty it shall be to balance the scales and see that the coal is properly weighed, and that a correct account of the same is kept, and for this purpose he shall have access at all times to the beam box of said scales, and be afforded every facility for verifying the weights while the weighing is being done. The check weighman so employed by the miners, before entering upon his duties, shall make and subscribe to an oath before some person duly authorized to administer oaths, that he will faithfully discharge his duties as check weighman, and such oath shall be kept conspicuously posted at the place of weighing.

BOUNDARIES.

SEC. 25. TEN-FOOT LIMIT. (a) In no case shall the workings of any mine be driven nearer than ten feet to the boundary line of the coal rights pertaining to said mine, except for the purpose of establishing an underground communication between contiguous mines, as provided for elsewhere in this act.

APPROACHING OLD WORKS. (b) Whenever the workings of any part of a mine are approaching old workings, believed to contain dangerous accumulations of water or of gas, the operator of said mine must conduct the advances with narrow work, and maintain bore holes at least twenty feet in advance of the face of the work, and such side holes as may be deemed prudent or necessary.

NOTICE TO INSPECTORS.

SEC. 26. Immediate notice must be conveyed to the inspector of the proper district by the operator interested:

1. Whenever an accident occurs whereby any person receives serious or fatal injury.

2. Whenever it is intended to sink a shaft, either for hoisting or escapement purposes, or to open a new mine by any process.

3. Whenever it is intended to abandon any mine or to reopen any abandoned mine.

4. Upon the appearance of any large body of fire damp in any mine, whether accompanied by explosion or not, and upon the occurrence of any serious fire within the mine or on the surface.

5. When the workings of any mine are approaching dangerously near any abandoned mine, believed to contain accumulations of water or of gas.

6. Upon the accidental closing or intended abandonment of any passageway to an escapement outlet.

ACCIDENTS.

SEC. 27. DUTY OF INSPECTOR. (a) Whenever loss of life or serious personal injury shall occur by reason of any explosion, or of any accident whatsoever, in or connected with any coal mine, it shall be the duty of the person having charge of said mine to report that fact, without delay, to the inspector of the district in which the mine is located, and the said inspector shall, if he deem necessary from the facts reported, and in all cases of loss of life, immediately go to the scene of said accident and render every possible assistance to those in need.

It shall moreover be the duty of every operator of a coal mine to make and preserve for the information of the inspector, and upon uniform blanks furnished by said inspector, a record of all injuries sustained by any of his employees in the pursuance of their regular occupations.

CORONER'S INQUEST. (b) If any person is killed by any explosion, or other accident, the operator must also notify the coroner of the county, or in his absence or inability to act, any justice of the peace of said county, for the purpose of holding an inquest concerning the cause of such death. At such inquest the inspector shall offer such testimony as he may be possessed of, and may question or cross-question any witness appearing in the case.

INVESTIGATION BY INSPECTOR. (c) The inspector may also make any original or supplemental investigation which he may deem necessary, as to the nature and cause of any accident within his jurisdiction, and shall make a record of the circumstances attending the same, and of the result of his investigations, for preservation in the files of his office. To enable him to make such investigations he shall have the power to compel the attendance of witnesses, and to administer oaths or affirmations to them, and the cost of such investigations shall be paid by the county in which such accident has occurred, in the same manner as the costs of coroners' inquest are paid.

MEN ON CAGES.

SEC. 28. TOP MAN AND BOTTOM MAN. (a) At every shaft operated by steam power, the operator must station at the top and at the bottom of such shaft, a competent man charged with the duty of attending to signals, preserving order, and enforcing the rules governing the carriage of men on cages. Said top man and bottom man shall be at their respective posts of duty at least a half hour before the hoisting of coal begins in the morning, and remain for half an hour after hoisting ceases for the day.

LIGHTS ON LANDINGS. (b) Whenever the hoisting or lowering of men occurs before daylight or after dark, or when the landing at which men take or leave the cage is at all obscured by steam or otherwise, there must always be maintained at such landing a light sufficient to show the landing and surrounding objects distinctly. Likewise, as long as there are men underground in any mine, the operator shall maintain a good and sufficient light at the bottom of the shaft thereof, so that persons coming to the bottom may clearly discern the cage and objects in the vicinity.

SPEED OF CAGES AND OTHER REGULATIONS. (c) Cages on which men are riding shall not be lifted nor lowered at a rate of speed greater than six hundred feet per minute, except with the written consent of the inspector. No person shall carry any tools, timber or other materials with him on a cage in motion, except for use in repairing the shaft, and no one shall ride on a cage containing either a loaded or empty car. No cage having an unstable or self-dumping platform shall be used for the carriage of men or materials, unless the same is provided with some convenient device by which said platform can be securely locked, and unless it is so locked whenever men or materials are being conveyed thereon. No coal shall be hoisted in any shaft while men are being lowered therein.

RIGHTS OF MEN TO COME OUT. (d) Whenever men who have finished their day's work, or have been prevented from further work, shall come to the bottom to be hoisted out, an empty cage shall be given them for that purpose, unless there is an available exit, by slope or by stairway in an escapement shaft, and providing there the bottom ready to be hoisted.

SAFETY LAMPS.

SEC. 29. OPERATOR MUST FURNISH. (a) At any mine where the inspector shall find that fire damp is being generated so as to require the use of a safety lamp in any part thereof, the operator of such mine, upon receiving notice from the inspector that one or more such lamps are necessary to the safety of the men in such mine, shall at once procure and keep for use such number of safety lamps as may be necessary.

MINE MANAGER MUST CARE FOR. (b) All safety lamps used for examining mines or for working therein shall be the property of the operator, and shall remain in the custody of the mine manager, or other competent person, who shall clean, fill, trim, examine and deliver the same, locked and in a safe condition, to the men, upon their request, when entering the mine, and shall receive the same from the men at the end of their shift. But miners shall be responsible for the condition and proper use of safety lamps when in their possession.

STRETCHERS AND BLANKETS.

SEC. 30. At every mine where fifty men are employed underground it shall be the duty of the operator thereof to keep always on hand, and at some readily accessible place, a properly constructed stretcher, a woolen and waterproof blanket, and a roll of bandages in good condition and ready for immediate use for binding, covering and carrying anyone who may be injured at the mine. When two hundred or more men are employed in any mine, two stretchers and two woolen and two waterproof blankets, with a corresponding supply of bandages, shall be provided and kept on hand. At mines where fire damp is generated there shall also be provided and kept in store, a suitable supply of linseed or olive oil, for use in case men are burned by an explosion.

CAUTION TO MINERS.

SEC. 31. It shall be unlawful for any miner, workman or other person knowingly or carelessly to injure any shaft, safety lamp, instrument, air course or brattice, or to obstruct or throw open any air way, or carry any open lamp or lighted pipe or fire in any form into any place worked by the light of safety lamps, or within five feet of any open powder, or to handle or disturb any part of the hoisting machinery, or open any door regulating an air current and not close the same, or to enter any part of the mine against caution, or to use other than copper needles and copper-tipped tamping bars, or to disobey any order given in pursuance of this act, or to do any willful act whereby the lives or health of persons working in mines or the security of the mine or the machinery thereof is endangered.

SEC. 32. It shall be the duty of every operator to post, on the engine house and at the pit top of his mine, in such manner that the employees in the mine can read them, rules not inconsistent with this act, plainly printed in the English language, which shall govern all persons working in the mine. And the posting of such notice, as provided, shall charge all employees of such mine with legal notice of the contents thereof.

PENALTIES.

SEC. 33. Any willful neglect, refusal or failure to do the things required to be done by any section, clause or provision of this act, on the part of the person or persons herein required to do them, or any violation of any of the provisions or requirements hereof, or any attempt to obstruct or interfere with any inspector in the discharge of the duties herein imposed upon him, or any refusal to comply with the instructions of an inspector given by authority of this act, shall be deemed a misdemeanor punishable by a fine not exceeding five hundred dollars, or by imprisonment in the county jail for a period not exceeding six months or both, at the discretion of the court: *Provided*, That in addition to the above penalties, in case of the failure of any operator to comply with the provisions of this act in relation to the sinking of escape-ment shafts and the ventilation of mines, the State's attorney for the county in which such failure occurs, or any other attorney, in case of his neglect to act promptly, shall proceed against such operator by injunction without bond, to restrain him from continuing to operate such mine until all legal requirements shall have been fully complied with.

Any inspector who shall discover that any section of this act, or part thereof, is being neglected or violated, shall order immediate compliance therewith, and in case of continued failure to comply, shall, through the State's attorney, or any other attorney, in case of his failure to act promptly, take the necessary legal steps to enforce compliance therewith through the penalties herein prescribed.

If it becomes necessary, through the refusal or failure of the State's attorney to act, for any other attorney to appear for the State in any suit involving the enforcement of any provision of this act, reasonable fees for the services of such attorney shall be allowed by the board of supervisors, or county commissioners, in and for the county in which such proceedings are instituted.

For any injury to person or property, occasioned by any willful violations of this act, or willful failure to comply with any of its provisions, a right of action shall accrue to the party injured for any direct damages sustained thereby; and, in case of loss of life by reason of such willful violation or willful failure as aforesaid, a right of action shall accrue to the widow of the person so killed, his lineal heirs or adopted children, or to any other person or persons who were, before such loss of life, dependent for support on the person or persons so killed, for a like recovery of damages for the injuries sustained by reason of such loss of life or lives, not to exceed the sum of five thousand dollars.

DEFINITIONS.

SEC. 34. MINE. (a) In this act the words "mine" and "coal mine," used in their general sense, are intended to signify any and all parts of the property of a mining plant, on the surface or underground, which contribute, directly or indirectly, under one management, to the mining or handling of coal.

EXCAVATIONS OR WORKINGS. (b) The words "excavations" and "workings" signify any or all parts of a mine excavated or being excavated, including shafts, tunnels, entries, rooms and working places, whether abandoned or in use.

SHAFT. (c) The term "shaft" means any vertical opening through the strata which is or may be used for purposes of ventilation or escapement, or for the hoisting or lowering of men and material in connection with the mining of coal.

SLOPE OR DRIFT. (d) The term "slope" or "drift" means any inclined or horizontal way, opening or tunnel to a seam of coal to be used for the same purposes as a shaft.

OPERATOR. (e) The term "operator" as applied to the party in control of a mine in this act, signifies the person, firm or body corporate who is the immediate proprietor as owner or lessee of the plant, and, as such, responsible for the condition and management thereof.

INSPECTOR. (f) The term "inspector" in this act signifies the State inspector of mines, within and for the district to which he is appointed.

MINE MANAGER. (g) The "mine manager" is the person who is charged with the general direction of the underground work, or both the underground and outside work of any coal mine, and who is commonly known and designated as "mine boss," or "foreman," or "pit boss."

MINE EXAMINER. (h) The "mine examiner" is the person charged with the examination of the condition of the mine before the miners are permitted to enter it, and who is commonly known, and has been designated in former enactments as the "fire boss."

Approved April 18, 1899.

INDIANA.

ACTS OF 1899.

CHAPTER 27.—*Convict labor.*

SECTION 1. It shall be the duty of the board of control of the Indiana State prison to institute such instruction of an educational and technical nature, as, in their judgment, shall be to the best interest of the inmates.

SEC. 2. The board of control of the Indiana State prison are hereby authorized to contract for the labor of four hundred of the convicts of said prison, and should the population of said prison exceed eight hundred, then said board of control are also authorized to contract and let out, in addition to the labor of said four hundred, the labor of not exceeding 50 per cent of the number of said convicts over and above eight hundred. Such convict labor shall be employed at such trades and industries as may be selected by the said board of control, and such board are also authorized to establish the piece-price system at said prison, giving the said board of control full control of the labor of said convicts, if the same shall be, in the opinion of said board of control, expedient and practicable: *Providing, however,* That whether said labor of the said prisoners to be employed upon the contract system or upon the piece-price system, the number of convicts employed in any single trade or industry shall not exceed one hundred.

SEC. 3. The said board of control are hereby authorized to lease lands within a reasonable distance from said prison, to be selected by them, to be employed and used in raising and cultivating farm products, the same to be used to supply the wants and needs of said prison, and should there remain any surplus, the same may be sold in the open market, and said board of control may employ, upon said lands so leased, all prisoners in said prison, not employed in prison duties. Such prisoners shall be employed only at hand labor while working said leased land. The control and superintendency of said leased lands and the convicts employed upon the same shall be under the direct control of the officers of said prison.

SEC. 4. No contract for the labor of the convicts of said prison shall be made for a longer period than up to October 1, 1904. Such contracts, whether made for the labor of said convicts, or on the piece-price system, shall be awarded to the highest bidder for the same. The regular hours for the day's work in said prison shall not exceed eight hours, subject to temporary changes under necessity, or to fit special cases, to be sanctioned by the board of control.

SEC. 7. It is the intent and purpose of this act, that all work done by the prisoners of the Indiana State prison, under the State account system, shall be hand work, as far as practicable or remunerative to the State.

Approved February 10, 1899.

CHAPTER 124.—*Payment of wages, etc.*

SECTION 1. Every person, company, corporation or association employing any person to labor, or in any other service for hire, shall make weekly payments for the full amount due for such labor or service, in lawful money of the United States to within six days or less of the time of such payment; but if, at any time of stated payment, any employee as aforesaid shall be absent from his regular place of labor or service, he shall be paid in like manner thereafter on demand: *Provided*, That this act shall not apply to any employee engaged by a common carrier in interstate commerce: and, *Provided*, That the labor commissioners of the State, after notice and hearing may exempt any of the aforesaid parties whose employees prefer a less frequent payment, from paying any of its employees weekly, if, in the opinion of the said commissioners, the interests of the public and of such employees will not suffer thereby.

SEC. 2. The chief inspector of the department of inspection of this State, or any person interested, may bring suit in the name of the State in any court of competent jurisdiction, and the prosecuting attorney of any county wherein such suit is brought, shall prosecute the same against any person, company, corporation or association that neglects or refuses to comply with section 1 of this act, within ten days after such payment is due and left unpaid; and in case judgment is rendered in favor of said employee and against said defendant for the sum alleged to be due or any part thereof, 6 per centum of such sum shall be added to such judgment from the time when payment was due; and a penalty of 50 per centum of the amount of such judgment shall be assessed and collected from said defendant by said court and paid into the school fund of the State.

SEC. 3. It shall be unlawful for any employer to assess a fine on any pretext against any employee and retain the same or any part thereof from the wages of said employee at the time of payment fixed in this act, or at any other time, and a change in the current rate of wages paid is prohibited without a written notice given to each employee so affected twenty-four hours before such change shall take place.

SEC. 4. The assignment of future wages, to become due to employees from persons, companies, corporations or associations affected by this act, is hereby prohibited, nor shall any agreement be valid that relieves said persons, companies, corporations or associations from the obligation to pay weekly, the full amount due, or to become due, to any employee in accordance with the provisions of this act: *Provided*, That nothing in this act shall be construed to prevent employers advancing money to their employees.

SEC. 5. Any person, company, corporation or association, found guilty by a court of competent jurisdiction of having violated the third and fourth sections of this act, shall be deemed guilty of having committed a misdemeanor, and shall be fined by such court in any sum not exceeding \$200.

SEC. 7. All laws or parts of laws in conflict with the provisions of this act are hereby repealed.

Approved February 28, 1899.

CHAPTER 128.—*Establishment of labor commission and arbitration of labor disputes.*

SECTION 1. There shall be, and is hereby created a commission to be composed of two electors of the State, which shall be designated the labor commission, and

which shall be charged with the duties and vested with the powers hereinafter enumerated.

SEC. 2. The members of said commission shall be appointed by the governor, by and with the advice and consent of the senate, and shall hold office for four years and until their successors shall have been appointed and qualified. One of said commissioners shall have been for not less than ten years of his life an employee for wages in some department of industry in which it is usual to employ a number of persons under single direction and control, and shall be at the time of his appointment affiliated with the labor interest, as distinguished from the capitalist or employing interest. The other of said commissioners shall have been for not less than ten years an employer of labor for wages in some department of industry in which it is usual to employ a number of persons under single direction and control, and shall be at the time of his appointment affiliated with the employing interest as distinguished from the labor interest. Neither of said commissioners shall be less than 40 years of age; they shall not be members of the same political party, and neither of them shall hold any other State, county, or city office in Indiana during the term for which he shall have been appointed. Each of said commissioners shall take and subscribe an oath, to be indorsed upon his commission, to the effect that he will punctually, honestly and faithfully discharge his duties as such commissioner.

SEC. 3. Said commission shall have a seal and shall be provided with an office at Indianapolis, and may appoint a secretary who shall be a skillful stenographer and typewriter, and shall receive a salary of six hundred dollars per annum and traveling expenses for every day spent in the discharge of duty away from Indianapolis.

SEC. 4. It shall be the duty of said commissioners upon receiving creditable information in any manner of the existence of any strike, lockout, boycott, or other labor complication in this State, to go to the place where such complication exists, put themselves into communication with the parties to the controversy and offer their services as mediators between them. If they shall not succeed in effecting an amicable adjustment of the controversy in that way they shall endeavor to induce the parties to submit their differences to arbitration, either under the provisions of this act or otherwise, as they may elect.

SEC. 5. For the purpose of arbitration under this act, the labor commissioners and the judge of the circuit court of the county in which the business in relation to which the controversy shall arise, shall have been carried on, shall constitute a board of arbitrators, to which may be added, if the parties so agree, two other members, one to be named by the employer and the other by the employees in the arbitration agreement. If the parties to the controversy are a railroad company and employees of the company engaged in the running of trains, any terminal, within this State, of the road, or of any division thereof, may be taken and treated as the location of the business within the terms of this section for the purpose of giving jurisdiction to the judge of the circuit court to act as a member of the board of arbitration.

SEC. 6. An agreement to enter into arbitration under this act shall be in writing, and shall state the issue to be submitted and decided, and shall have the effect of an agreement by the parties to abide by and perform the award. Such agreement may be signed by the employer as an individual, firm or corporation, as the case may be, and execution of the agreement in the name of the employer by any agent or representative of such employer then and therefore in control or management of the business or department of business in relation to which the controversy shall have arisen, shall bind the employer. On the part of the employees, the agreement may be signed by them in their own person, not less than two-thirds of those concerned in the controversy signing, or it may be signed by a committee by them appointed. Such committee may be created by election at a meeting of the employees concerned in the controversy at which not less than two-thirds of all such employees shall be present, which election and the fact of the presence of the required number of employees at the meeting shall be evidenced by the affidavit of the chairman and secretary of such meeting attached to the arbitration agreement, but any employee concerned in any such controversy shall be accorded a hearing before such board. If the employees concerned in the controversy, or any of them, shall be members of any labor union or workingmen's society, they may be represented in the execution of said arbitration agreement by officers or committeemen of the union or society designated by it in any manner conformable to its usual methods of transacting business, and others of the employees represented by committee as hereinbefore provided.

SEC. 7. If upon any occasion calling for the presence and intervention of the labor commissioners under the provisions of this act, one of said commissioners shall be present and the other absent, the judge of the circuit court of the county in which the dispute shall have arisen, as defined in section 5, shall, upon the application of

the commissioners present, appoint a commissioner pro tem. in the place of the absent commissioner, and such commissioner pro tem. shall exercise all the powers of a commissioner under this act until the termination of the duties of the commission with respect to the particular controversy upon the occasion of which the appointment shall have been made, and shall receive the same pay and allowances provided by this act for the other commissioners. Such commissioner pro tem. shall represent and be affiliated with the same interests as the absent commissioner.

SEC. 8. Before entering upon their duties the arbitrators shall take and subscribe an oath or affirmation to the effect that they will honestly and impartially perform their duties as arbitrators and a just and fair award render to the best of their ability. The sittings of the arbitrators shall be in the court room of the circuit court, or such other place as shall be provided by the county commissioners of the county in which the hearing is had. The circuit judge shall be the presiding member of the board. He shall have power to issue subpoenas for witnesses who do not appear voluntarily, directed to the sheriff of the county, whose duty it shall be to serve the same without delay. He shall have power to administer oaths and affirmations to witnesses, enforce order, and direct and control the examinations. The proceedings shall be informal in character, but in general accordance with the practice governing the circuit courts in the trial of civil causes. All questions of practice, or questions relating to the admission of evidence shall be decided by the presiding member of the board summarily and without extended argument. The sittings shall be open and public or with closed doors, as the board shall direct. If five members are sitting as such board three members of the board agreeing shall have power to make an award, otherwise two. The secretary of the commission shall attend the sittings and make a record of the proceedings in shorthand, but shall transcribe so much thereof only as the commission shall direct.

SEC. 9. The arbitrators shall make their award in writing and deliver the same with the arbitration agreement and their oath as arbitrators to the clerk of the circuit court of the county in which the hearing was had, and deliver a copy of the award to the employer and a copy to the first signer of the arbitration agreement on the part of the employees. A copy of all the papers shall also be preserved in the office of the commission at Indianapolis.

SEC. 10. The clerk of the circuit court shall record the papers delivered to him as directed in the last preceding section, in the order book of the circuit court. Any person who was a party to the arbitration proceedings may present to the circuit court of the county in which the hearing was had, or the judge thereof in vacation, a verified petition referring to the proceedings and the record of them in the order book and showing that said award has not been complied with, stating by whom and in what respect it has been disobeyed. And thereupon the court or judge thereof in vacation, shall grant a rule against the party or parties so charged, to show cause within five days why said award has not been obeyed, which shall be served by the sheriff as other process. Upon return made to the rule the judge or court, if in session, shall hear and determine the questions presented and make such order or orders directed to the parties before him in personam, as shall give just effect to the award. Disobedience by any party to such proceedings of any order so made shall be deemed a contempt of the court and may be punished accordingly. But such punishment shall not extend to imprisonment except in case of willful and contumacious disobedience. In all proceedings under this section the award shall be regarded as presumptively binding upon the employer and all employees who were parties to the controversy submitted to arbitration, which presumption shall be overcome only by proof of dissent from the submission delivered to the arbitrators, or one of them, in writing before the commencement of the hearing.

SEC. 11. The labor commission, with the advice and assistance of the attorney-general of the State, which he is hereby required to render, shall make rules and regulations respecting proceedings in arbitrations under this act not inconsistent with this act or the law, including forms, and cause the same to be printed and furnished to all persons applying therefor, and all arbitration proceedings under this act shall thereafter conform to such rules and regulations.

SEC. 12. Any employer and his employees, between whom differences exist which have not resulted in any open rupture or strike, may of their own motion apply to the labor commission for arbitration of their differences, and upon the execution of an arbitration agreement as hereinbefore provided a board of arbitrators shall be organized in the manner hereinbefore provided, and the arbitration shall take place and the award be rendered, recorded and enforced in the same manner as in arbitrations under the provisions found in the preceding sections of this act.

SEC. 13. In all cases arising under this act requiring the attendance of a judge of the circuit court as a member of an arbitration board, such duty shall have prece-

dence over any other business pending in his court, and if necessary for the prompt transaction of such other business it shall be his duty to appoint some other circuit judge, or judge of a superior or the appellate or supreme court to sit in the circuit court in his place during the pendency of such arbitration, and such appointee shall receive the same compensation for his services as is now allowed by law to judges appointed to sit in case of change of judge in civil actions. In case the judge of the circuit court, whose duty it shall become under this act to sit upon any board of arbitration, shall be at the time actually engaged in a trial which can not be interrupted without loss and injury to the parties, and which will in his opinion continue for more than three days to come, or is disabled from acting by sickness or otherwise, it shall be the duty of such judge to call in and appoint some other circuit judge, or some judge of a superior court, or the appellate or supreme court, to sit upon such board of arbitrators, and such appointed judge shall have the same power and perform the same duties as member of the board of arbitration as are by this act vested in and charged upon the circuit court judge regularly sitting, and he shall receive the same compensation now provided by law to a judge sitting by appointment upon a change of judge in civil cases, to be paid in the same way.

SEC. 14. If the parties to any such labor controversy as is defined in section 4 of this act shall have failed at the end of five days after the first communication of said labor commission with them, to adjust their differences amicably, or to agree to submit the same to arbitration, it shall be the duty of the labor commission to proceed at once to investigate the facts attending the disagreement. In this investigation the commission shall be entitled, upon request, to the presence and assistance of the attorney-general of the State, in person or by deputy, whose duty it is hereby made to attend without delay, upon request by letter or telegram from the commission. For the purpose of such investigation the commission shall have power to issue subpoenas, and each of the commissioners shall have power to administer oaths and affirmations. Such subpoena shall be under the seal of the commission and signed by the secretary of the commission, or a member of it, and shall command the attendance of the person or persons named in it at a time and place named, which subpoena may be served and returned as other process by any sheriff or constable in the State. In case of disobedience of any such subpoena, or the refusal of any witness to testify, the circuit court of the county within which the subpoena was issued, or the judge thereof in vacation, shall, upon the application of the labor commission, grant a rule against the disobeying person or persons, or the person refusing to testify, to show cause forthwith why he or they should not obey such subpoena, or testify as required by the commission, or be adjudged guilty of contempt, and in such proceedings such court, or the judge thereof in vacation, shall be empowered to compel obedience to such subpoena as in the case of subpoena issued under the order and by authority of the court, or to compel a witness to testify as witnesses in court are compelled to testify. But no person shall be required to attend as a witness at any place outside the county of his residence. Witnesses called by the labor commission under this section shall be paid \$1 per diem fees out of the expense fund provided by this act, if such payment is claimed at the time of their examination.

SEC. 15. Upon the completion of the investigation authorized by the last preceding section, the labor commission shall forthwith report the facts thereby disclosed affecting the merits of the controversy in succinct and condensed form to the governor, who, unless he shall perceive good reason to the contrary, shall at once authorize such report to be given out for publication. And as soon thereafter as practicable, such report shall be printed under the direction of the commission and a copy shall be supplied to any one requesting the same.

SEC. 16. Any employer shall be entitled, in his response to the inquiries made of him by the commission in the investigation provided for in the two last preceding sections, to submit in writing to the commission, a statement of any facts material to the inquiry, the publication of which would be likely to be injurious to his business, and the facts so stated shall be taken and held as confidential, and shall not be disclosed in the report or otherwise.

SEC. 17. Said commissioners shall receive a compensation of eighteen hundred dollars each per annum, and actual and necessary traveling expenses while absent from home in the performance of duty, and each of the two members of a board of arbitration chosen by the parties under the provisions of this act shall receive five dollars per day compensation for the days occupied in service upon the board. The attorney-general, or his deputy, shall receive his necessary and actual traveling expenses while absent from home in the service of the commission. Such compensation and expenses shall be paid by the treasurer of state upon warrants drawn by the auditor upon itemized and verified accounts of time spent and expenses paid. All such accounts, except those of the commissioners, shall be certified as correct by the com-

missioners, or one of them, and the accounts of the commissioners shall be certified by the secretary of the commission.

SEC. 18. For the payment of the salary of the secretary of the commission, the compensation of the commissioners and other arbitrators, the traveling and hotel expenses herein authorized to be paid, and for witness fees, stationery, postage, telegrams and office expenses there is hereby appropriated out of any money in the treasury, not otherwise appropriated, the sum of five thousand dollars for the year of 1899 and five thousand dollars for the year 1900.

SEC. 19. All laws and parts of laws conflicting with any of the provisions of this act are hereby repealed.

Approved February 28, 1899.

CHAPTER 142.—*Factories and workshops—Hours of labor—Employment of women and children—Safety of employees—Sanitary regulations—Sweating system—Inspection, etc.*

SECTION 1. No person under 16 years of age, and no female under 18 years of age, employed in any manufacturing or mercantile establishment, laundry, renovating works, bakery or printing office, shall be required, permitted or suffered to work therein more than sixty hours in any one week, nor more than ten hours in any one day, unless for the purpose of making a shorter day on the last day of the week; nor more hours in any one week than will make an average of ten hours per day for the whole number of days which such person or such female shall so work during such week; and every person, firm, corporation or company employing any person under 16 years of age, or any female under 18 years of age in any establishment as aforesaid, shall post and keep posted in a conspicuous place in every room where such help is employed a printed notice stating the number of hours of labor per day required of such person for each day of the week, and the number of hours of labor exacted or permitted to be performed by such persons shall not exceed the number of hours of labor so posted as being required. The time of beginning and ending the day's labor shall be the time stated in such notice: *Provided*, That such female under 18 and persons under 16 years of age may begin after the time set for beginning and stop before the time set in such notice for the stopping of the day's labor, but they shall not be permitted or required to perform any labor before the time stated on the notices as the time for beginning the day's labor, nor after the time stated upon the notices as the hour of ending the day's labor.

SEC. 2. No child under fourteen years of age shall be employed in any manufacturing or mercantile establishment, mine, quarry, laundry, renovating works, bakery or printing office within this State. It shall be the duty of every person employing young persons under the age of sixteen years to keep a register, in which shall be recorded the name, birthplace, age and place of residence of every person employed by him under the age of sixteen years; and it shall be unlawful for any proprietor, agent, foreman or other person connected with a manufacturing or mercantile establishment, mine, quarry, laundry, renovating works, bakery or printing office to hire or employ any young person to work therein without there is first provided and placed on file in the office an affidavit made by the parent or guardian, stating the age, date and place of birth of said young person; if such young person have no parent or guardian, then such affidavit shall be made by the young person, which affidavit shall be kept on file by the employer, and said register and affidavit shall be produced for inspection on demand made by the inspector, appointed under this act. There shall be posted conspicuously in every room where young persons are employed, a list of their names, with their ages, respectively. No young person under the age of sixteen years, who is not blind, shall be employed in any establishment aforesaid, who can not read and write simple sentences in the English language, except during the vacation of the public schools in the city or town where such minor lives. The chief inspector of the department of inspection shall have the power to demand a certificate of physical fitness from some regular physician in the case of young persons who may seem physically unable to perform the labor at which they may be employed, and shall have the power to prohibit the employment of any minor that can not obtain such certificate.

SEC. 3. No person or corporation, or officer or agent thereof, shall employ any woman or female young person in any capacity for the purpose of manufacturing, between the hours of 10 o'clock at night and 6 o'clock in the morning.

SEC. 4. No person, company, corporation or association shall employ or permit any young person to have the care, custody, management of or to operate any elevator.

SEC. 5. It shall be the duty of the owner or lessee of any manufacturing or mercantile establishment, laundry, renovating works, bakery or printing office, where there is an elevator, hoisting shaft or wellhole, to cause the same to be

properly and substantially inclosed or secured, if in the opinion of the chief inspector it is necessary, to protect the lives or limbs of those employed in such establishment. It shall also be the duty of the owner, agent or lessee of each of such establishments to provide, or cause to be provided, if in the opinion of the chief inspector, the safety of persons in or about the premises should require it, such proper trap or automatic doors so fastened in or at all elevator ways as to form a substantial surface when closed, and so constructed as to open and close by the action of the elevator in its passage, either ascending or descending, but the requirements of this section shall not apply to passenger elevators that are closed on all sides. The chief inspector shall inspect the cables, gearing or other apparatus of elevators in the establishments above enumerated and require that the same be kept in safe condition with proper safety devices whereby the cabs or cars will be securely held in event of accident to the cable or rope or hoisting machinery, or from any similar cause.

Sec. 6. Proper and substantial hand rails shall be provided on all stairways in all establishments above enumerated, and where, in the opinion of the chief inspector it is necessary, the steps of said stairs in all such establishments shall be substantially covered with rubber, securely fastened thereon, for the better safety of persons employed in said establishments. The stairs shall be properly screened at the sides and bottom. All doors leading in or to such establishments aforesaid shall be so constructed as to open outwardly where practicable, and shall be neither locked, bolted nor fastened during working hours.

Sec. 7. In every manufacturing or other establishment, where the machinery used is propelled by steam, communication shall be provided between each room where such machinery is placed and the room where the engineer is stationed, by means of speaking tubes, electric bells or appliances that may control the motive power, or such other means as shall be satisfactory to the chief inspector: *Provided*, That in the opinion of the inspector such communication is necessary.

Sec. 8. It shall be the duty of the owner, agent, superintendent or other person having charge of any manufacturing or mercantile establishment, mine, quarry, laundry, renovating works, bakery or printing office within this State, or of any floor or part thereof, to report in writing to the chief inspector all accidents or injury done to any person in such premises within forty-eight hours of the time of the accident, stating as fully as possible the extent and cause of such injury, and the place where the injured person is sent, with such other information relative thereto as may be required by the chief inspector. The chief inspector is hereby authorized and empowered to fully investigate the causes of such accident, and to require such reasonable precautions to be taken as will, in his judgment, prevent the recurrence of similar accidents.

Sec. 9. It shall be the duty of the owner of any aforesaid establishment, or his agent, superintendent or other person in charge of the same, to furnish and supply, or cause to be furnished and supplied therein, in the discretion of the chief inspector, where machinery is used, belt shifters or other safe mechanical contrivances for the purpose of throwing on or off belts or pulleys; and whenever possible, machinery therein shall be provided with loose pulleys; all vats, pans, saws, planers, cogs, gearing, belting, shafting, set screws and machinery of every description therein shall be properly guarded, and no person shall remove or make ineffective any safeguard around or attached to any planer, saw, belting, shafting or other machinery, or around any vat or pan, while the same is in use, unless for the purpose of immediately making repairs thereto, and all such safeguards shall be promptly replaced. By attaching thereto a notice to that effect, the use of any machinery may be prohibited by the chief inspector should such machinery be regarded as dangerous. Such notice must be signed by the chief inspector, and shall only be removed after the required safeguards are provided, and the unsafe or dangerous machine shall not be used in the meantime. Exhaust fans of sufficient power shall be provided for the purpose of carrying off dust from emery wheels and grindstones and dust-creating machinery from establishments where used. No person under 16 years of age, and no female under 18 years of age, shall be allowed to clean machinery while in motion.

Sec. 10. A suitable and proper wash-room and water-closets shall be provided by the owner, agent or lessee in each establishment above enumerated, and such water-closets shall be properly screened and ventilated and be kept at all times in a clean condition, with not less than one seat for each twenty-five persons, and one seat for each fraction thereof above ten, employed in such establishment; and if women and girls are employed in any such establishment, the water-closets used by them shall have separate approaches and be separate and apart from those used by the men. All water-closets shall be kept free of obscene writing and marking. A dressing room shall be provided for women and girls, when required by the chief inspector, in any establishment aforesaid in which women and girls are employed; and the employer

of such women and girls shall provide a suitable seat for the use of each female employee placed conveniently where she works, and shall permit the use of the same when she is not necessarily engaged in the active duties for which she is employed, and such seats shall be constructed or adjusted where practicable so as to be a fixture and not obstruct such female when actually engaged in the performance of such duties when such seat can not be used.

SEC. 11. Not less than sixty minutes shall be allowed for the noonday meal in any aforesaid establishment in this State. The chief inspector shall have the power to issue written permits in special cases, allowing shorter meal time at noon, and such permit must be conspicuously posted in the main entrance of the establishment, and such permit may be revoked at any time the chief inspector deems necessary, and shall only be given when good cause can be shown.

SEC. 12. The walls and ceilings of each room in every establishment aforesaid, shall be lime-washed or painted, when in the opinion of the chief inspector it shall be conducive to the health or cleanliness of the persons working therein.

SEC. 13. The chief inspector, or other competent person designated for such purpose by the chief inspector, shall inspect any building used as aforesaid, or anything attached thereto, located therein, or connected therewith, which has been represented to be unsafe or dangerous to life or limb. If it appears upon such inspection that the building or anything attached thereto, located therein, or connected therewith, is unsafe or dangerous to life or limb, the chief inspector shall order the same to be removed or rendered safe and secure, and if such notification be not complied with within a reasonable time, he shall prosecute whoever may be responsible for such delinquency.

SEC. 14. No room or rooms, apartment or apartments in any tenement or dwelling house shall be used for the manufacture of coats, vests, trousers, knee-pants, overalls, cloaks, furs, fur trimmings, fur garments, shirts, purses, feathers, artificial flowers or cigars, for sale, excepting by the immediate members of the family living therein. No person, firm or corporation shall hire or employ any person to work in any one room or rooms, apartment or apartments, in any tenement or dwelling house, or building in the rear of a tenement or dwelling house at making, in whole, or in part, any vests, coats, trousers, knee-pants, fur, furs trimmings, shirts, purses, feathers, artificial flowers or cigars, for sale, without obtaining first a written permit from the chief inspector, which permit may be revoked at any time the health of the community, or of those employed therein, may require it, and which permit shall not be granted until an inspection of such premises is made by the chief inspector or a deputy inspector, and the maximum number of persons allowed to be employed therein shall be stated in such permit. Such permit shall be framed and posted in a conspicuous place in the room, or in any one of the rooms to which it relates.

SEC. 15. No less than two hundred and fifty cubic feet of air space shall be allowed for each person in any workroom where persons are employed during the hours between six o'clock in the morning and six o'clock in the evening, and not less than four hundred cubic feet of air space shall be provided for each person in any workroom where persons are employed between six o'clock in the evening and six o'clock in the morning. By a written permit the chief inspector may allow persons to be employed in a room where there are less than four hundred cubic feet, but not less than two hundred and fifty cubic feet of air space for each person employed between six o'clock in the evening and six o'clock in the morning: *Provided*, Such room is lighted by electricity at all times during such hours while persons are employed therein. There shall be sufficient means of ventilation provided in each workroom of every manufacturing or mercantile establishment, laundry, renovating works, bakery or printing office within this State, and the chief inspector shall notify the owner in writing to provide, or cause to be provided, ample and proper means of ventilation for such workroom, and shall prosecute such owner, agent or lessee if such notification be not complied with within twenty days of the service of such notice.

SEC. 16. Proprietors, agents or managers of any manufacturing or mercantile establishment, mine or quarry, laundry, renovating works, bakery or printing office, are prohibited from discriminating against any person or persons, or class of labor seeking work, by posting notices or otherwise.

SEC. 17. It shall be unlawful for notaries public and other officers to receive more than ten cents for the preparing and certifying to a "Certificate of Parent or Guardian," provided for in this act.

SEC. 18. The language used in this act shall be interpreted to have the following meaning: The word "person" means any individual, corporation, partnership, company or association. The word "child" means a person under the age of fourteen years. The words "young person" means a person of the age of fourteen years

and under the age of eighteen years. The word "woman" means a female of the age of eighteen years and upwards. The words "manufacturing or mercantile establishment, mine, quarry, laundry, renovating works, bakery or printing office" means any mill, factory, workshop, store, place of trade or other establishment where goods, wares or merchandise are manufactured or offered for sale, or any mine or quarry where coal and stone are mined and quarried for the market, and persons are employed for hire.

SEC. 19. For the purpose of carrying out the provisions of this act, a department of inspection is hereby created, and the governor shall, by and with the advice and consent of the senate, appoint a chief inspector to have charge of said department. Said inspector shall hold and continue in office after the expiration of his term of office until his successor shall have been appointed and qualified. The term of office of the chief inspector shall be for four years. The annual salary of such chief inspector shall be one thousand eight hundred dollars and actual expenses when absent from home in the discharge of his official duties. Said chief inspector shall, by and with the consent of the governor, appoint two deputy inspectors, whose salary shall be one thousand dollars each per annum, and actual expenses when absent from home in discharge of their official duties. But said actual expenses for the department of inspection shall in no year exceed the sum of one thousand five hundred dollars, and the duties of the deputy inspectors shall be such as shall be assigned them by the chief inspector. Said chief inspector shall also employ a stenographer at a salary not to exceed six hundred dollars per annum. The salary and actual expenses of said deputy inspectors and stenographer shall be paid monthly as due, on vouchers duly attested before some officer authorized to administer oaths, and approved and signed by the chief inspector, and the salary and actual expenses of the chief inspector shall be paid in monthly installments, out of the treasury of the State, upon warrant of the auditor of state, and the total annual appropriation of five thousand nine hundred dollars for such payments aforesaid is hereby made out of any moneys in the State treasury not otherwise appropriated: *Provided*, That the auditor of state shall issue no warrant, except upon itemized bills, sworn to, and presented by the chief inspector provided for in this act.

SEC. 20. The custodian of the State capitol shall assign a suitable and sufficient room or rooms therein for use as the office of said department of inspection, and provide the same with all necessary furniture and janitor service.

SEC. 21. The chief inspector shall keep a record of all inspections and examinations made by his department, and copies of all notices and orders made by him, and, at the close of his term of office, transfer the books containing the same to his successor. He shall make an annual report of his doings as such inspector to the governor at the close of each fiscal year, and cause the same to be printed, at the expense of the State, not later than the first day of January next ensuing, in such numbers as the governor may approve. Such inspector and deputy inspectors shall have power as notaries public to administer oaths and take affidavits in matters connected with the enforcement of the provisions of this act.

SEC. 22. It shall be the duty of the chief inspector to cause this act to be enforced, and to cause all violators of the same to be prosecuted, and for that purpose he is empowered to visit and inspect at all reasonable hours, and as often as shall be practicable and necessary, all manufacturing or other establishments to which this bill relates. It shall be the duty of the chief inspector to examine into all violations of laws made for the benefit or protection of labor and to prosecute all violations thereof. It shall be unlawful for any person to interfere with, obstruct or hinder said chief inspector or deputy inspectors while in the performance of his or their duties, or to refuse to properly answer questions asked by him or them with reference to any of the provisions hereof.

SEC. 23. It shall be the duty of the chief inspector to supply all blanks necessary to make reports to his office, as required in this act, and be furnished copies of this act, which shall be conspicuously posted or hung, and kept posted or hung, in each workroom of every manufacturing or other establishment to which it relates, in the State, by the proprietor or occupant thereof.

SEC. 24. The prosecuting attorney of any county of this State is hereby required upon request of the chief inspector, or of any other person of full age, to commence and prosecute to a termination before any court of competent jurisdiction, in the name of the State, actions or proceedings against any person or persons reported to him to have violated the provisions of this act.

SEC. 25. Any person who violates or omits to comply with any of the provisions of this act, or who refuses to comply with the orders of the chief inspector, properly made under the provisions of this act, or who suffers or permits any young person

or child to be employed in violation of its provisions, shall be deemed guilty of a misdemeanor, and on conviction shall be fined not more than fifty dollars for the first offense, and not more than one hundred dollars for the second offense, to which may be added imprisonment for not more than ten days, and for the third offense a fine of not less than two hundred and fifty dollars and not more than thirty days' imprisonment in the county jail.

Sec. 26. Any person, company, corporation or association aggrieved by any order of the chief inspector may appeal to the circuit court in the county where the person, firm or corporation owns, leases or occupies the factory or buildings in relation to which said order relates, within ten days after notice of such order shall have been given. Said appeal shall operate as a supersedeas, shall be made in writing, and contain a brief statement of the facts and reasons for such appeal and a citation for the chief inspector to appear before said court, and said court or any judge thereof may direct the time of appearance and manner of service. Said court may review the doings of the chief inspector, may examine the questions in issue, and may confirm, change or set aside the doings of the chief inspector, in this particular case, and may make such orders in the premises, including orders as to costs, as it may find to be proper and equitable.

Sec. 27. In case of an appeal from any order of the chief inspector the prosecuting attorney of the circuit court shall appear as counsel for the State to sustain and defend such orders and in case such order be sustained on such appeal, a fee of twenty-five dollars shall be taxed against the appellant as the prosecuting attorney's fee, which fee shall be taxed as costs in the case.

Sec. 28. All laws and parts of laws in conflict with the provisions of this act are hereby repealed.

Approved March 2, 1899.

CHAPTER 144.—*Mine regulations—Oil for illuminating purposes.*

SECTION 1. Only a pure animal or vegetable oil, or other oils that shall be as free from smoke as a pure animal or vegetable oil, and not the product or by-product of rosin, and which shall, on inspection, comply with the following list, shall be used for illuminating purposes in the mines of this State: All such oil must be tested by the State supervisor of oil inspection or his deputies at 60° Fahrenheit. The specific gravity of the oil must not exceed 24° degrees Tagliabue. The test of the oil must be made in a glass jar one and five-tenths ($1\frac{5}{10}$) inches in diameter by seven (7) inches in depth. If the oil to be tested is below 45° Fahrenheit, and should the oil be above 45° and below 60° Fahrenheit, it must be raised to a temperature of about 70° Fahrenheit, when, after being well shaken, it shall be allowed to cool gradually to a temperature of 60° Fahrenheit before finally being tested. In testing the gravity of the oil the Tagliabue hydrometer must be, when possible, read from below, and the last line which appears under the surface of the oil shall be regarded as the true reading. In case the oil under test should be opaque or turbid one-half of the capillary attraction shall be deemed and taken to be the true reading. When the oil is tested under difficult circumstances an allowance of one-half degree may be made for possible error in parallax before condemning the oil for use in the mine. All oil sold to be used for illuminating purposes in the mines of the State shall be contained in barrels or packages, branded conspicuously with the name of the dealer, the specific gravity of the oil and the date of shipment.

Sec. 2. Any individual, firm, corporation or company that sells or offers for sale any other oil other than provided in section 1 to be used for illuminating purposes in coal or other mines of the State, or the individual, firm, corporation, company or person having in charge the operation or running of any mine, who permits the use in his or their mine any oil for illuminating purposes other than provided for in section 1, or any employee in any mine of this State, who uses with a knowledge of its character, a quality of oil other than is provided for in section 1, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in any sum not less than five (5) dollars nor more than twenty-five (25) dollars.

Approved March 3, 1899.

CHAPTER 167.—*Mine regulations—Blasting.*

SECTION 1. There [shall] be no shooting, or blasting of any kind allowed in the mines of the State in working hours: *Provided*, In cases of opening up a new mine, which contains not over twenty employees, and not over one hundred yards in any direction from the bottom of said shaft, the said mine operator, superintendent, agent, boss and miners shall be permitted to allow shooting or blasting twice in working hours only.

SEC. 2. Where powder, or other explosives, is used in mining or loosing coal, in any mine of this State, it shall be unlawful for any miner or other persons to fire any shot in any working place, on any entry, before all shots in places beyond such working place have been fired, and all miners and other persons have passed such working place on their way to the outlet of such mine.

SEC. 3. In any mine in this State, where coal is mined by "blasting off the solid" it shall be unlawful for any miner or other person to drill any hole, for the purpose of blasting, more than one foot past the end of his cutting or "loose end" or to prepare a "shot" in such a way that the distance from the hole to the loose end shall be more than five feet, measured at right angles to the direction of the hole.

SEC. 4. It shall be unlawful for any miner, or other person, to place in any hole, for the purpose of blasting coal or other material, in any coal mine in this State, more than eight pounds of blasting powder, or to light a squib, fuse or other device with a purpose to discharge any shot which he knows to contain more than eight pounds of blasting powder, or to discharge any such shot by the use of an electric battery or any other device which may be used for such purpose.

SEC. 5. It shall be the duty of the mine operator or superintendent or agent or mine boss to see that section 1 of this act be enforced or carried out.

SEC. 6. And for violation of any section of this act the same parties, the mine operator, superintendent, agent, boss and miners shall be guilty of a misdemeanor, and for such offense shall be fined not over one hundred dollars, nor less than five dollars, or imprisonment in the county jail not over six months, nor less than thirty days for each offense.

Approved March 4, 1899.

CHAPTER 207.—*Factories and workshops—Protection from fire.*

SECTION 1. * * * Every building in which persons are employed above the second story in a factory, workshop or mercantile or other establishment; and every hotel, family hotel, apartment house, boarding house, lodging house, clubhouse or tenement house in which persons reside or lodge above the third story; and every factory, workshop, mercantile or other establishment of more than two stories in height, shall be provided with proper ways of egress or means of escape from fire, sufficient for the use of all persons accommodated, assembled, employed, lodged or residing in such building, and such ways of egress and means of escape shall be kept free from obstruction, in good repair and ready for use at all times, and all rooms above the second story in any such building shall be provided with more than one way of egress or escape from fire, placed as near as practicable at opposite ends of the room, and leading to fire escapes on the outside of such buildings or to stairways on the inside provided with proper railings. All external doors subject to the provisions of this section shall open outward, and all windows open outward or upward. No portable seats shall be allowed in the aisles or passageways of such buildings during any entertainment or service held therein. * * *

SEC. 2. In addition to the foregoing means of escape from fire, all such buildings as are enumerated in section 1 of this act, as are more than three stories in height, shall have one or more fire escapes on the outside of said building, as may be directed by the chief inspector aforesaid, except in such cases as the said chief inspector may deem such fire escapes to be unnecessary in consequence of adequate provision having been already made for safety in the event of fire, and in such cases of exemption, the said chief inspector shall give the owner, lessee or occupant of said building a written certificate to that effect and his reasons therefor; and such fire escapes as are provided for in this section shall be connected with each floor above the first, well fastened and secured, and of sufficient strength, each of which fire escapes shall have landings or balconies not less than nine feet in length and three feet in width, guarded by iron railings not less than three feet in height, and embracing at least two windows at each story and connecting with the interior by easily accessible and unobstructed openings, and the balconies on landings shall be connected by iron stairs, not less than eighteen inches wide, the steps not to be less than six inches tread nor more than nine inches rise, placed at a slant of not more than forty-five degrees, and protected by a well-secured hand rail on both sides, with a twelve-inch wide drop-ladder from the lower platform reaching to the ground; except in cases of school buildings, instead of drop-ladder, the ladders reaching from balconies to the ground shall be permanent, and so placed as to stand at an angle of forty-five degrees or less.

SEC. 3. Any other plan or style of fire escape shall be sufficient, if approved by the chief inspector, but if not so approved, the chief inspector may notify the owner, proprietor or lessee of such establishment, or if the building in which such establish-

ment is conducted, or the agent or superintendent, or school officer, or either of them, in writing, that any such plan or style of fire escape is not sufficient, and may, by an order in writing, served in like manner, require one or more fire escapes, as he shall deem necessary and sufficient, to be provided for such establishment at such location and such plan and style as shall be specified in such written order. Within twenty days after the service of such order the number of fire escapes required in such order for such establishment shall be provided therefor, each of which shall be of the plan and style and in accordance with the specifications in said order required. The windows or doors to each fire escape shall be of sufficient size and be located as far as possible consistent with accessibility from the stairways and elevator hatchways or openings, and the ladder thereof shall extend to the roof. Stationary stairs or ladders shall be provided on the inside of such establishment from the upper story to the roof, as a means of escape in case of fire.

SEC. 6. The owner of any building designated in this act, or the lessee or the occupant thereof, or any school officer or other officer having charge of public property, who neglects or refuses to comply with any of the provisions of this act, shall be fined not exceeding two hundred dollars, and be deemed guilty of a misdemeanor punishable by imprisonment for not less than one month nor more than two months. And in case of fire occurring in said building or buildings in the absence of such fire escape or escapes, the said person or persons or corporations or public officials shall be liable in an action for damages with a penalty of five thousand dollars for the life of each person killed in case of death, or for damages for personal injuries sustained in consequence of such fire breaking out in said building, and shall also be deemed guilty of a misdemeanor punishable by imprisonment for not less than six months, nor more than twelve months in the county jail; and such action for damages may be maintained by any person now authorized by law to sue as in other cases of similar injuries: *Provided*, That nothing in this act shall interfere with fire escapes now in use approved by the chief inspector.

SEC. 7. The chief inspector of the department of inspection of the State is hereby charged with the enforcement of this act, and shall see that its provisions are observed and enforced, and for this purpose he or his deputies shall have free access at all reasonable hours to all buildings embraced herein; and the prosecuting attorney in each county of the State shall render all necessary legal assistance as may be required by said chief inspector in enforcing this act.

SEC. 8. All laws and parts of laws in conflict with the provisions of this act are hereby repealed.

Approved March 6, 1899.

CHAPTER 226.—*Pay of unskilled labor on public works.*

SECTION 1. From and after the passage of this act, unskilled labor employed upon any public work of the State, counties, cities and towns shall receive not less than fifteen cents an hour for said labor.

SEC. 2. All laws and parts of laws in conflict with the provisions of this act are hereby repealed.

SEC. 3. Whereas, an emergency exists for the immediate taking effect of this act, the same shall be in force from and after its passage.

Approved March 6, 1899.

MICHIGAN.

ACTS OF 1899.

ACT No. 57.—*Coal mine regulations.*

SECTION 1. An inspector of coal mines shall be appointed by the commissioner of labor, whose duties shall be to inspect the coal mines of Michigan, and from time to time report the results of his inspections with such other labor statistics as he shall be directed to collect, to the commissioner of labor, upon such blanks and in such manner as the latter named official shall designate, and the results and findings of said coal mine inspections shall be incorporated in the regular annual report of said commissioner of labor. Said inspector shall receive in compensation for his services three dollars per day and his necessary expenses of travel while employed and under instructions, it being further provided that the expenses and salary of said inspector shall not exceed fifteen hundred dollars per year. And to provide for this expense an annual appropriation of fifteen hundred dollars is hereby authorized, and the same shall be placed with the regular appropriation of the labor bureau fund, to

be expended by the commissioner of labor for the purposes heretofore provided, and as he shall authorize and direct.

SEC. 2. An escape shaft not less than eight feet square, shall be provided in all coal mines in this State, for the safety of employees, and said escape shaft shall be provided with suitable means of escape and egress, and shall be located at least three hundred feet and not to exceed four hundred feet from the main shaft, unless extenuating circumstances require that it be located differently than described, then the distance shall only be extended five hundred feet and at a point to be determined within the discretion of the inspector. This section not to apply to mines already provided with suitable escape shafts, but all others shall be provided with said escape shafts within three months after the main shaft is completed and ready for operation.

SEC. 3. Only a competent and trustworthy engineer shall be permitted to operate the cages and hoisting devices in all coal mines in this State.

SEC. 4. Safety catches and covers shall be on all cages; no more than ten men [shall] be allowed to ride upon a cage at the same time, and no one [shall] be allowed on one cage while a loaded car is on the other cage; suitable gates shall inclose the top of all shafts, which shall be kept closed, except when absolutely necessary to have them open.

SEC. 5. All weighmen, who shall perform the duty of weighing the coal, shall be sworn by someone competent to administer a legal oath, that they will perform their duty accurately and impartially as between employers and employees, and that they will honestly report and record all weights of coal to which they are intrusted.

SEC. 6. The coal mine employees shall have the right to name a competent and fair check weighman, who shall be paid by the employees, and shall be sworn by any one authorized to administer oaths.

SEC. 7. The owner, agent or operator of any and all mines shall keep a supply of timber constantly on hand, of sufficient length and dimensions to be used as props and cap pieces, and the same shall be delivered to the miner at his respective place of work, of such dimensions as he shall designate.

SEC. 8. Every mine owner or agent operating a coal mine shall furnish means and devices that will supply a sufficient amount of fresh air when necessary, or when required by said inspector of mines.

SEC. 9. The inspector, when properly commissioned by the commissioner of labor, shall have the right and power to enter any coal mine for the purpose of inspecting or collecting statistics relating to hours of labor, wages, industrial, economic and sanitary questions or matters, scales and oils.

SEC. 10. Any owner, part owner, operator, manager, or superintendent of any such mine, or director or officer of any stock company owning or operating any such mine, who shall knowingly and willfully violate any of the provisions of this act, or omit to comply with any of its said provisions, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars nor more than one hundred dollars, or by imprisonment in the county jail not less than ten nor more than ninety days, or by both such fine and imprisonment, in the discretion of the court.

This act is ordered to take immediate effect.

Approved May 2, 1899.

ACT No. 77.—*Factories and workshops—Employment of children—Inspection, etc.*

SECTION 1. Sections two and fifteen of act one hundred eighty-four of the public acts of eighteen hundred and ninety-five * * * is [are] hereby amended so as to read as follows:

SEC. 2. No child under fourteen years of age shall be employed in any manufacturing establishment within this State. It shall be the duty of every person employing children to keep a register, in which shall be recorded the name, birthplace, age and place of residence of every person employed by him under the age of sixteen years, and no child shall be employed between the hours of six o'clock p. m. and seven o'clock a. m.; and it shall be unlawful for any manufacturing establishment to hire or employ any child under the age of sixteen years without there is first provided and placed on file a sworn statement made by the parent or guardian, stating the age, date and place of birth of said child, and that the child can read and write. If said child have no parent or guardian, then such statement shall be made by the child, which statement shall be kept on file by the employer, and which said register and statement shall be produced for inspection on demand made by any factory inspector appointed under this act: *Provided*, That in the city of Detroit all sworn statements must be made before a deputy factory inspector.

SEC. 15. For the purpose of carrying out the provisions of this act the commis-

sioner of labor is hereby authorized and required to cause at least one annual inspection of the manufacturing establishments or factories in this State. Such inspection may be by the commissioner of labor, the deputy commissioner of labor, or such other persons as may be appointed by the commissioner of labor for the purpose of making such inspection. Such persons shall be under the control and direction of the commissioner of labor and are especially charged with the duties imposed and shall receive such compensation as shall be fixed by the commissioner of labor, not to exceed three dollars a day, together with all necessary expenses. All compensation for services and expenses provided for in this act shall be paid by the State treasurer upon the warrant of the auditor-general: *Provided*, That not more than fifteen thousand dollars shall be expended in such inspection in any one year: *And provided further*, That the commissioner of labor shall present to the governor on or before the first day of February, eighteen hundred and ninety-six, and annually thereafter, a report of such inspection with such recommendation as may be necessary: *And provided further*, That in addition to the above amount allowed for expenses, there may be printed not to exceed one thousand copies of such reports for the use of the labor bureau for general distribution. And all printing, binding, blanks, stationery, supplies or map work shall be done under any contract which the State now has or shall have for similar work with any party or parties, and the expense thereof shall be audited and paid for in the same manner as other State printing.

This act is ordered to take immediate effect.

Approved May 17, 1899.

ACT No. 110.—*Preference of labor claims, etc., against railroad companies.*

SECTION 1. When any person shall have any claim for the labor of himself or any minor child against any railroad company or street-railway company, organized and doing business under any of the laws of this State, and which claim shall be duly presented to the proper officer of said company, and shall remain unpaid for a period of ten days after such presentation, said claim shall constitute a lien upon all the property, both real and personal, of said corporation, and shall be a prior lien to any and all judgments or attachments which may be existing against said corporation, by reason of any other debt, claim or demand, than those claims or demands against said corporation for personal work or labor. All persons employed by said corporation shall have the advantages of this act, in whatever capacity they may be employed.

SEC. 2. All claims arising out of the death or personal injury of any person, when such death or personal injury shall result from the negligence of any street-railway company or steam railroad company, organized and doing business under the laws of this State, shall, after judgment is obtained therefor, against any such corporation, constitute a lien upon all of the assets of said corporation, and all of the property thereof, and all of its rights and franchises, and over any and all other judgments, executions or attachments levied upon said property, except such as may be issued in favor of persons having obtained judgments for personal work and labor of themselves or their minor children.

SEC. 3. It shall be the duty of all courts of this State, in which proceedings may be pending, for the foreclosure of any mortgage, trust deed or other lien upon any of the property of any street-railway company or steam railroad company, doing business in this State, to cause said company, before final decree is entered in said cause, to file with said court, through the register thereof, a statement of all claims and demands made against said company by any and all persons for personal work or labor, and for damages resulting from death or personal injuries, and which claim shall have arisen within six years prior to the date of filing the same with said court. And it shall be the duty of said court, upon the filing of the same, to notify any and all persons interested in said claims, or their attorneys, to be and appear before said court upon a certain day to present their said claims, and the proof thereof, when such claims are claims for personal work and labor, and to inform said court in case of claims for personal injury or death, whether it is the design of said claimant to prosecute the same to final judgment or not.

This act is ordered to take immediate effect.

Approved June 9, 1899.

ACT No. 155.—*Limitation of time within which actions for damages for personal injuries may be brought.*

SECTION 1. No action shall hereafter be brought in any courts of this State to recover damages for personal injuries unless the same shall be brought within three years from the occurrence upon which the claim for liability is founded.

Sec. 2. All acts or parts of acts in any wise contravening any of the provisions of this act are hereby repealed.

This act is ordered to take immediate effect.

Approved June 23, 1899.

ACT No. 202.—*Factories and workshops—Fans or blowers for emery wheels, etc.*

SECTION 1. All persons, companies or corporations, operating any factory or workshop, where wheels or emery belts of any description are in general use, either leather, leather covered, felt, canvas paper, cotton or wheels or belts rolled or coated with emery or corundum, or cotton, wheels used as buffs, shall provide the same with fans or blowers, or similar apparatus, when ordered by the commissioner of labor, which shall be placed in such a position or manner as to protect [protect] the person or persons using the same from the particles of dust produced and caused thereby, and to carry away the dust arising from, or thrown off by such wheels or belts, while in operation, directly to the outside of the building or to some other receptacle placed so as to receive and confine such dust, and the same shall be placed in such factory or workshop within three months after this act shall take effect, in the manner and according to the directions and specifications as herein, in this act set forth: *Provided*, That grinding machines upon which water is used at the point of grinding contact shall be exempt from the conditions of this act. *And provided further*, That this act shall not apply to solid emery wheels used in sawmills or planing mills or other wood-working establishments.

Sec. 2. It shall be the duty of any person, company or corporation operating any such factory or workshop to provide or construct such appliances, apparatus, machinery or other things necessary to carry out the purpose of this act, as set forth in the preceding section, as follows: Each and every such wheel shall be fitted with a sheet or cast iron hood or hopper of such form and so applied to such wheel or wheels that the dust or refuse therefrom will fall from such wheels or will be thrown into such hood or hopper by centrifugal force and be carried off by the current of air into a suction pipe attached to same hood or hopper.

Sec. 3. Each and every such wheel six inches or less in diameter shall be provided with a three-inch suction pipe; wheels six inches to twenty-four inches in diameter with four-inch suction pipe; wheels from twenty-four inches to thirty-six inches in diameter with a five-inch suction pipe; and all wheels larger in diameter than those stated above shall be provided each with a suction pipe, not less than six inches in diameter. The suction pipe from each wheel, so specified, must be full sized to the main trunk suction pipe, and the said main suction pipe to which smaller pipes are attached shall, in its diameter and capacity, be equal to the combined area of such smaller pipes attached to the same; and the discharge pipe from the exhaust fan, connected with such suction pipe or pipes, shall be as large or larger than the suction pipe.

Sec. 4. It shall be the duty of any person, company or corporation operating any such factory or workshop, to provide the necessary fans or blowers to be connected with such pipe or pipes, as above set forth, which shall be run at such a rate of speed as will produce a velocity of air in such suction or discharge pipes of at least nine thousand feet per minute or an equivalent suction or pressure of air equal to raising a column of water not less than five inches high in a U-shaped tube. All branch pipes must enter the main trunk pipe at an angle of forty-five degrees or less. The main suction, or trunk pipe, shall be below the polishing or buffing wheels and as close to the same as possible and to be either upon the floor or beneath the floor on which the machines are placed to which such wheels are attached. All bends, turns or elbows in such pipes must be made with easy smooth surfaces having a radius in the throat of not less than two diameters of the pipe on which they are connected.

Sec. 5. It shall be the duty of any factory inspector, sheriff, constable or prosecuting attorney of any county in this State, in which any such factory or workshop is situated, upon receiving notice in writing, signed by any person or persons, having knowledge of such facts, that such factory or workshop, is not provided with such appliances as herein provided for, to visit any such factory or workshop and inspect the same and for such purpose they are hereby authorized to enter any factory or workshop in this State during working hours, and upon ascertaining the facts that the proprietors or managers of such factory or workshops have failed to comply with the provisions of this act, to make complaint of the same in writing before a justice of the peace, or police magistrate having jurisdiction, who shall thereupon issue his warrant directed to the owner, manager or director in such factory or workshop, who shall be thereupon proceeded against for the violation of this act as hereinafter mentioned, and it is made the duty of the prosecuting attorney to prosecute all cases under this act.

SEC. 6. Any such person or persons or company or managers or directors of any such company or corporation who shall have the charge or management of such factory or workshop, who shall fail to comply with the provisions of this act, shall be deemed guilty of a misdemeanor and upon conviction thereof before any court of competent jurisdiction shall be punished by a fine of not less than twenty-five dollars and not exceeding one hundred dollars, or imprisonment in the county jail not less than thirty days, or exceeding ninety days or both such fine and imprisonment, at the discretion of the court. All acts or parts of acts contravening the provisions of this act are hereby repealed.

Approved May 17, 1899.

ACT No. 212.—*Examination, licensing, etc., of barbers.*

SECTION 1. The governor shall on or before the first day of October in the year eighteen hundred and ninety-nine appoint a barber to serve for one year, a barber to serve for two years, and a barber to serve for three years, who with their respective successors to be appointed annually thereafter and to serve for the term of three years each shall constitute a board of examiners of barbers.

SEC. 2. The member whose term shall soonest expire shall be president, the one whose term shall next soonest expire shall be treasurer, and the one having longest to serve shall be secretary of said board. They shall receive each their actual expenses incurred in the performance of their duties, to be audited by the State board of auditors and on their warrant to be paid by the treasurer of the State of Michigan.

SEC. 3. The treasurer of said board shall before entering upon his duties give to the people of the State of Michigan a bond in the penal sum of six thousand dollars to be approved by and filed with the secretary of state, conditioned for the faithful receipt, disbursement and accounting for according to this act of all moneys that may come into his hands as such treasurer. The treasurer of said board shall receive an annual salary of five hundred dollars, payable out of the general funds of the State not otherwise appropriated, on the warrant of the auditor general.

SEC. 4. Said board shall meet at least four times each year at different places within this State, one of said meetings to be held in the Upper Peninsula, to conduct an examination of persons desiring to follow the occupation of barber, and shall give at least thirty days' previous notice of the time and place of such meetings in at least two of the daily newspapers of the State.

SEC. 5. Each applicant shall be examined concerning his ability to prepare and fit for use the ordinary tools and utensils used by barbers, including the proper antiseptic treatment of razors, shears, clippers, brushes, combs, shaving cups and towels, the nature and effect of eruptive and other diseases of the skin and scalp and whether the same are infectious or communicable. No person so examined shall receive the certificate of said board unless he shall appear to be skilled in the use of barbers' tools and possessed of knowledge sufficient to prevent the spread by means of barbers' tools and appliances of eruptive and other diseases of the skin and scalp. No person so examined shall receive such certificate who is at the time of such examination an alien: *Provided*, That no barber shall receive a certificate who is in the habit of using intoxicating liquors to excess.

SEC. 6. Each person applying to said board for a certificate shall pay to the treasurer thereof the sum of five dollars, which shall entitle him to examination and to a certificate if found qualified: *Provided*, This section shall not apply to barbers now engaged in the business of a barber in this State and who have been so engaged for the period of two years.

SEC. 7. Every person now engaged in the business of a barber in this State, and who has been so engaged for the period of two years or more, shall within ninety days after this act shall take effect file with the secretary of said board a statement verified by his oath to be administered by any notary public of the State, showing his name, place of business, post-office address, the length of time he has actually served as a barber, and shall pay to said secretary the sum of one dollar and receive and shall be entitled to receive from said board a certificate as a barber, and shall pay annually thereafter the sum of fifty cents for a renewal of said certificate.

SEC. 8. A true record shall be kept by the secretary of said board, showing to whom the certificates of the board have been issued, and said board shall on the first day of October and April in each year make and file with the treasurer of the State of Michigan a list of all persons so certified, and the treasurer of said board shall at the same time render an account of all receipts of said board, and pay over to said State treasurer all the sums of money in his hands. The secretary of said board shall receive an annual salary of six hundred dollars payable out of the general funds of the State not otherwise appropriated on the warrant of the auditor general.

SEC. 9. It shall be unlawful for any person to follow the occupation of a barber without the certificate of said board of examiners: *Provided, however,* That this act shall not apply to apprentices serving as such under certified barbers: *Provided, further,* That all persons making application for examination under the provisions of this act shall be allowed to practice the occupation of barbering until the next regular meeting of said board.

SEC. 10. Any person violating the provisions of this act shall, upon conviction, be punished by a fine of not less than five nor more than fifty dollars, and any convicted person who shall refuse or neglect to pay any such fine may be imprisoned in the county jail until such fine is paid, not exceeding, however, twenty days.

Approved June 1, 1899.

ACT No. 229.—*Examination, licensing, etc., of horseshoers.*

SECTION 1. No person shall practice horseshoeing as a master or journeyman horseshoer in any city of this State of a population of ten thousand or upwards, unless he is duly registered and has been granted a certificate by the board of examiners, as hereinafter provided.

SEC. 2. A board of examiners, consisting of one veterinary surgeon, two master horseshoers and two journeymen horseshoer [s] is hereby created, all of whom shall be residents of this State and shall have had at least five years practical experience in their respective professions, and whose duty it shall be to carry out the provisions of this act. The members of said board shall be appointed by the governor, by and with the consent of the senate, and the term of office shall be five years, except that the members of said board first appointed shall hold office for the terms of one, two, three, four and five years, as may be designated by the governor, and until their successors shall be duly appointed and shall have qualified.

SEC. 3. Said board shall within thirty days after its appointment, meet and organize by the election of a president and secretary from its own members, who shall be elected for the term of one year, and shall perform the duties prescribed by the board. It shall be the duty of the board of examiners to examine all applications for registration submitted in proper form; to grant certificates of registration to such persons as may be entitled to the same under the provisions of this act; to investigate complaints and to cause the prosecution of all persons violating its provisions; and to report annually to the governor, which said report shall contain a record of the proceedings of said board for the year, and also the names of all the master and journeyman horseshoers registered under the provisions of this act. The board shall hold meetings for the examination of applicants for registration or the transaction of such other business as shall pertain to its duty, at least once in six months, said meetings to be held on the first Tuesdays of March and September in each year, and as much oftener and at such times and places as they may deem necessary; and it shall make by-laws for the proper fulfillment of its duties under this act, and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act. The records of said board, or a copy of them or any part thereof, certified by the secretary to be a true copy, and attested by the seal of the board, shall be accepted as competent evidence in all courts of the State. Three members of said board shall constitute a quorum.

SEC. 4. The secretary of the board and the treasurer thereof, if such office be created separately, shall receive a salary which shall be fixed by the board, and the members of said board shall receive the amount of their traveling expenses incurred in the performance of their official duties, and a per diem salary of three dollars. Said salaries, per diem and expenses shall be paid out of the fees received under this act and not otherwise, and in no case shall the expenses and per diem provided for by this section be paid by this State. All moneys received by the said board in excess of said per diem allowance and other expenses above provided for shall be paid into the State treasury at the end of each year, and so much thereof as shall be necessary to meet the current expenses of said board shall be subject to the order thereof, if, in any year, the receipts of said board shall not be equal to its expenses. The board shall make an annual report and render an account to the board of State auditors of all moneys received and disbursed by it pursuant to this act.

SEC. 5. Every person who shall, within six months after this act takes effect, forward to the board hereby created satisfactory proof, supported by his affidavit, that he was engaged in practicing, either as a master or a journeyman horseshoer, in this State at the time of the taking effect of this act, shall, upon the payment of a fee of three dollars to the board, be registered as a master or journeyman horseshoer and be granted a certificate to practice as such: *Provided,* That in case of failure or neglect to register as herein provided, then such person shall, in order to receive a certificate, an examination provided for in section six of this act.

Sec. 6. No person shall be entitled to register under this act, except as provided in section five, unless such person shall be of the age of eighteen years, and shall have passed a satisfactory examination touching his competency before the board of examiners created under the provisions of this act, and shall have been granted by the board a certificate to practice as a master or journeyman horseshoer: *Provided however*, That upon satisfactory proof, the secretary of the board, when the board is not in session, may grant a temporary certificate to any person making an application for examination, which temporary certificate shall entitle the said person to practice as a master or journeyman horseshoer until his examination by the said board. Every person applying for a certificate under the provisions of this act shall, before an examination is granted, furnish satisfactory evidence that he is of temperate habits, and pay to the board a fee of three dollars, and appear before said board at such time and place as said board may direct: *Provided*, In case of failure of any applicant to pass a satisfactory examination, the money shall be held to his credit for a second examination at any time within one year.

Sec. 7. Any person who shall exhibit any certificate which has been fraudulently obtained, or shall practice as a master or journeyman horseshoer without conforming to the requirements of this act, or shall otherwise violate or neglect to comply with any of the provisions of this act, shall be guilty of a misdemeanor.

Approved, June 8, 1899.

ACT No. 233.—*Factories and workshops—Sweating system.*

SECTION 1. Act number one hundred and eighty-four of the public acts of eighteen hundred ninety-five * * * is hereby amended by adding one section thereto to stand as section nineteen, to read as follows:

Sec. 19. No room or apartment in any tenement or dwelling house shall be used for the manufacture of coats, vests, trousers, knee pants, overalls, skirts, dresses, cloaks, hats, caps, suspenders, jerseys, blouses, waists, waistbands, underwear, neckwear, furs, fur trimmings, fur garments, shirts, hosiery, purses, feathers, artificial flowers, cigarettes or cigars, and no person, firm or corporation shall hire or employ any person to work in any room, apartment or in any building or parts of buildings at making, in whole or in part, any of the articles mentioned in this section, without first obtaining a written permit from the factory inspector, or one of his deputies, stating the maximum number of persons allowed to be employed therein, and that the building or part of building intended to be used for such work or business is thoroughly cleaned, sanitary and fit for occupancy for such work or business. Such permit shall not be granted until an inspection of such premises is made by the factory inspector or one of his deputies. Said permit may be revoked by the factory inspector at any time the health of the community or of those so employed may require it. It shall be framed and posted in a conspicuous place in the room, or in one of the rooms to which it relates. Every person, firm, company or corporation contracting for the manufacture of any of the articles mentioned in this section, or giving out the incomplete material from which they or any of them are to be made, or to be wholly or partially finished, shall, before contracting for the manufacture of any of said articles, or giving out said material from which they or any of them are to be made, require the production by such contractor, person or persons of said permit from the factory inspector, as required in this section, and shall keep a written register of the names and addresses of all persons to whom such work is given to be made, or with whom they may have contracted to do the same. Such register shall be produced for inspection and a copy thereof shall be furnished on demand made by the factory inspector or one of his deputies: *Provided*, That nothing in this section shall be so construed as to prevent the employment of a seamstress by any family for manufacturing articles for such family use.

Approved June 9, 1899.

MINNESOTA.

ACTS OF 1899.

CHAPTER 42.—*Employment bureaus.*

SECTION 1. Section four (4) of chapter two hundred and five (205) of the General Laws of eighteen hundred and eighty-five (1885), as amended by chapter seventy-four (74), of the General Laws of eighteen hundred and ninety-five (1895), is hereby amended so as to read as follows:

SECTION 4. Every person hired or engaged to work for others, by one so licensed, as aforesaid, shall be furnished a written copy in duplicate of the terms of such hire or

engagement, rate of wages or compensation, kind of service to be performed, length of time of such service, with full name and address of the person or persons, firm or corporation authorizing the hire of such person; one of the aforesaid copies to be delivered to the person or persons, firm or corporation for whom the contracted labor is to be performed, and the other to be retained by the person hired as aforesaid; and the agent issuing the above described written copy of the contract of service or employment shall make and keep, in a book provided for the purpose, a third copy of the same; and any person engaged in the business of keeping an employment bureau or agency, such as is contemplated by this act, who shall fail to observe the provisions of this section shall be guilty of a misdemeanor.

Any person hired or engaged to work for others, by one so licensed, as aforesaid, who shall fail to get employment according to the terms of such contract of hire or engagement by reason of any unauthorized act, fraud, or misrepresentation on the part of such agent, may bring an action upon said bond, and may recover in such action against the principal and sureties the full amount of his damages sustained by reason of such unauthorized act, fraud, or misrepresentation, together with his costs and disbursements in such action.

Sec. 2. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

Sec. 3. This act shall take effect and be in force from and after its passage.

Approved March 6, 1899.

CHAPTER 148.—*Investigation into Sunday labor.*

SECTION 1. The commissioner of labor is hereby directed and required to investigate the subject of Sunday labor in the State of Minnesota with respect to the number of persons employed, the conditions of employment and other facts relating thereto that he may be able to gather.

Sec. 2. The said commissioner shall incorporate in his biennial report to the legislature the results of the investigation authorized by this act.

Sec. 3. This act shall take effect and be in force from and after its passage.

Approved April 11, 1899.

CHAPTER 183.—*Sale of binding twine manufactured at the State prison.*

SECTION 1. The price of binding twine manufactured at the State prison at Stillwater shall be fixed by the warden and board of managers each year as soon as practicable, and not later than March first (1st), and shall be sold only to farmers or actual consumers thereof, in quantities necessary for their own use, up to and including the first (1st) day of May of each and every year, and shall be sold only for cash, or on such security as the warden of the State prison may approve.

Sec. 2. All the twine on hand on the first (1st) day of May of any year for which no order has been given by farmers or actual consumers (except five hundred thousand (500,000) pounds to be kept to fill subsequent direct orders) may, after said date, be disposed of by the warden or board of managers of the State's prison, in bulk to any citizen of this State applying therefor, at the price fixed by the board of managers, but only on the conditions hereinafter mentioned.

Such warden or board of managers shall require from any such person applying to obtain such twine on [in] a written agreement that he will resell such twine to actual consumers, who desire the same for their own actual use, and that he will not resell such twine in bulk to any other dealer, or attempt to evade the provisions of this act. Such person shall further agree that he will so resell such twine to actual consumers at a price not greater than one cent per pound above the price paid therefor, with the cost per pound of transportation from the State's prison to the place of such resale, added.

And, for the purpose of enforcing such contract, the State shall have a contingent interest in the twine so disposed of in bulk until the same is resold as herein provided, and the title of such purchaser from the State shall become complete and he be relieved from further accountability under this act only when he has fully complied with his said contract as to the manner and terms of such resale. Such purchaser shall also be required by said warden and board of managers to keep such State prison twine separate from any other twine he may have on hand for sale and to keep a correct record of the date, amount and name of the purchaser on all sales thereof made by him, which record shall be open at all times to any State's prison official or the county attorney of the county of his residence. In the sale, distribution and disposition of the twine, the board of managers and warden of the State prison shall apportion and divide the same throughout the several agricultural coun-

ties of the State, as near as may be, according to the acreage therein of grain requiring the use of binding twine. If any twine remains on hand unsold after July first (1st) in any year, the same may be sold absolutely to the first applicant therefor.

SEC. 3. Any willful violation of the provisions of this act, on the part of said persons entering into contract with said warden or said board of managers, for the sale of said binding twine, shall be punished by a fine of not less than twenty-five (25) or more than three hundred (300) dollars.

SEC. 4. This act shall take effect and be in force from and after its passage.

Approved April 13, 1899.

NEW YORK.

ACTS OF 1899.

[See page 617 of Bulletin No. 23 for other labor legislation of 1899.]

CHAPTER 370.—*Civil service law*—"The exempt class" and "the labor class in cities."

SECTION 11. The offices and positions in the classified service of the State or of any city or civil division thereof for which civil service rules shall be established pursuant to this act, shall be arranged in four classes to be designated as the exempt class, the competitive class, the noncompetitive class and, in cities, the labor class.

SEC. 12. The following positions shall be included in the exempt class:

* * * * *

4. In the State service, all unskilled laborers and such skilled laborers as are not included in the competitive class or the noncompetitive class; * * * . Appointments to positions in the exempt class may be made without examination.

SEC. 17. The labor class in cities shall include unskilled laborers and such skilled laborers as are not included in the competitive class or the noncompetitive class. Vacancies in the labor class in cities shall be filled by appointment from lists of applicants registered by the municipal commissions. Preference in employment from such lists shall be given according to date of application. There shall be separate lists of applicants for different kinds of labor or employment, and the commissions may establish separate labor lists for various institutions and departments. Where the labor service of any department or institution extends to separate localities, the commissions may provide separate registration lists for each district or locality. The commissions shall require an applicant for registration for the labor service to furnish such evidence or pass such examination as they may deem proper with respect to his age, residence, physical condition, ability to labor, skill, capacity and experience in the trade or employment for which he applies.

Became a law April 19, 1899, with the approval of the governor. Passed, a majority being present.

RECENT GOVERNMENT CONTRACTS.

[The Secretaries of the Treasury, War, and Navy Departments have consented to furnish statements of all contracts for constructions and repairs entered into by them. These, as received, will appear from time to time in the Bulletin.]

The following contract has been made by the Office of the Supervising Architect of the Treasury:

DUBUQUE, IOWA.—April 24, 1900. Contract with Ludlow-Saylor Wire Company, St. Louis, Mo., for stairs, elevator enclosure, and incidental changes in custom-house and post-office, \$4,568.25. Work to be completed within four months.

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BULLETIN

OF THE

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BULLETIN
OF THE
DEPARTMENT OF LABOR.

No. 29.

WASHINGTON.

JULY, 1900.

TRUSTS AND INDUSTRIAL COMBINATIONS.

BY JEREMIAH W. JENKS, PH. D.

[The organic law of the Department of Labor, among other specific provisions, directs the Commissioner of Labor to investigate "what articles are controlled by trusts, or other combinations of capital, business operations, or labor, and what effect said trusts or other combinations of capital, business operations, or labor have on production and prices," and to report to Congress. Under this direction of law plans were projected some two years ago to collect the general statistics concerning industrial combinations. Afterwards it was learned that the Industrial Commission intended covering similar ground, and the plans were abandoned. The Industrial Commission, however, determined to limit its inquiry to general matters and to recommendations for legislation, passing the following resolution relative to the statistics of trusts and combinations:

Resolved, That the Commissioner of Labor, in conformity with the organic act creating his Department, be requested to cooperate with the Industrial Commission in the investigation of the subject of trusts and industrial combinations, and to make the statistical inquiry necessary to reveal the facts as to the basis of capitalization in these combinations, and the degree of their monopoly of the domestic market, the degree of their control over the prices of products, and their influence upon wages and employment.

Accordingly the plans of the Department were perfected and the investigation undertaken as provided by law. The Industrial Commission's expert on trusts, Prof. Jeremiah W. Jenks, gave the Department the benefit of his experience and knowledge, not only in the construction of the searching schedule employed in the investigation, but in the collection of the facts called for by it. Experts of the Department were employed in the collection of the data presented, and the

tabulations were made by its force, but the analysis and discussion of the tables were committed to Professor Jenks. This service he has performed with judgment and impartiality.

The principal results of the present investigation would be more accurately indicated if the title given to the article had been "The Economic Effect of Trusts and Industrial Combinations upon Wages and Prices." The present broad title might suggest a more general discussion of all the economic phases of these combinations than the results of the investigation may seem to justify. But the facts for such general discussion were sought by the agents of the Department with care and persistence and the meagerness of the material secured on some important points is due either to the inability or unwillingness of the managers to furnish the information. All of the facts secured, however meager, are presented in the text and tables following for whatever value they may have in the study of the question.

To the officers of the combinations, who went to great trouble and expense to comply with the Government's request, grateful acknowledgments are extended. When it is considered that this has been an exceedingly difficult investigation it will be appreciated that those who patriotically extended every courtesy and facility for insuring its success are doubly entitled to thanks. The managers of some combinations, although perfectly willing to give complete information, were unable to do so, the accounts of constituent companies not having been transferred to the new corporation. The brief time which has elapsed since the organization of some of the combinations also stood in the way of securing positive results. Furthermore, some of the facts considered of greatest importance it has been simply impossible to secure. On the whole, however, for the first attempt to apply the statistical method to the discussion of one of the leading economic questions of the time, the report, while far short of an ideal presentation of the subject, must be considered as having some value in such discussion. A few years hence, when the results of experience can be more fully seen, an investigation can be made the results of which can be taken as practically conclusive on many points.

The aim and scope of the investigation are sufficiently shown by the analysis, but, specifically, the Department has sought to collect such facts as would carry out legal instructions by showing the general course of wages and prices, the employment of labor, and general economic conditions under combinations and private concerns. Of these points, two of the essential ones designated in law, those relating to wages and prices, have been fairly well brought out.

The refusal on the part of a few managers to furnish the information called for, has, as a rule, been courteous and based on what were thought to be good reasons. In some cases, however, the refusal was

on the ground that neither the Government nor the public has

any concern in such matters. This idea is fast losing its force in matters where the public is vitally interested, as shown by the fact that counsel of some of the largest combinations in the country took the ground that the Government had the right to make such inquiries as those asked in this investigation, and in some notable cases warmly advised their clients to furnish the facts. I wish to thank these gentlemen for their assistance.

It should be borne in mind that not all industrial combinations are trusts in the popular sense. In fact, there are but very few real trusts in the country. The combination sometimes does not differ from an enlarged corporation. To cover the matter, however, the title "Trusts and Industrial Combinations" has been given this report.—C. D. W.]

This study of facts regarding industrial combinations embodies the results of reports made by 41 combinations. In preparing the schedule of inquiry it was necessary to make the questions general enough so that they would apply, so far as possible, to all combinations. In consequence, practically, each combination found that some of the questions did not apply to its special line of business, but in general the questions were answered as freely as could be expected. Inasmuch as the investigation was for the purpose of learning as fully as possible the effects of industrial combinations, it has been desirable to secure information regarding the various companies which entered into the combinations, covering the period preceding the organization of the combinations, as well as the statistics of the combinations themselves. In a number of instances it has not been possible to secure details regarding the companies which entered a combination, inasmuch as those companies have been dissolved and their books and records are not in the possession or under the control of the combination itself, nor readily accessible. As regards the studies of prices, of course those are largely a matter of market record, so that this difficulty has not been insurmountable in many cases, although in individual instances where market reports have not been regularly kept the apparent effect on prices could not be noted.

DATES OF FORMATION.—Twenty-four of the 40 combinations reporting as to date of organization were formed in the years 1898 and 1899; of those formed before 1898 five were organized in 1891. One was formed as early as 1865.

AMOUNT OF CAPITALIZATION.—The 39 combinations reporting as to capitalization included many of the larger ones, the total amount of stock issued being \$1,351,069,525, or, if one includes the bonds in the capitalization, \$1,395,550,325. The total amount of capital stock authorized was \$1,518,650,000. The larger part of these combinations are those whose stock is widely scattered, although some have but few stockholders and their stock is not put regularly upon the market.

MARKETS.—Most of the combinations manufacture for the world's market; four or five of them find their markets limited to the United States, while one sells to only four States of the Union.

STOCK.—So much has been said during the past two years regarding the issue of stock by the larger combinations that it is worth while to note the circumstances of some of these issues before taking up particularly the study of the facts as brought out by the investigation.

Some of the larger combinations are organized for the purpose of holding the stock of other corporations. Such combinations do not directly own the plants nor carry on, as a company, any of the business of manufacturing. That is done by the constituent companies. When a large company, therefore, buys up all the stock of several other companies and issues its own stock substantially in exchange therefor, the total amount of stock capitalization of the country is, of course, thereby increased. It should, however, be understood that no added capital is called into existence, nor is there of necessity any demand for any further profits to be paid to stockholders. The profits of the constituent companies form the fund from which the dividends of the holding company are paid. In other cases on the formation of a combination the new company buys for cash or stock, as the case may be, all of the plants of the uniting companies, and these companies are then dissolved. When this form of combination is made it is quite possible that the total amount of capital stock of the country is not increased at all; it may even be decreased.

STOCK ISSUES.—The following table shows the per cent that the stock issued, both common and preferred, is of that authorized in each one of the 39 combinations reporting on this subject. Of the marginal numbers it should be said here that they can not be used for following a combination through the tables, as any given number does not represent the same combination throughout. The numbers are used merely for convenience in referring to the combinations.

PER CENT OF COMMON AND PREFERRED STOCK ISSUED OF STOCK AUTHORIZED, FOR 39 COMBINATIONS.

Marginal number.	Per cent of stock issued of stock authorized.		Marginal number.	Per cent of stock issued of stock authorized.		Marginal number.	Per cent of stock issued of stock authorized.	
	Common.	Preferred.		Common.	Preferred.		Common.	Preferred.
1.....	71.10	70.95	15.....	97.45	95.15	29.....	93.33	91.63
2.....	96.25	72.59	16.....	100.00	100.00	30.....	73.75	80.00
3.....	99.37	99.36	17.....	91.17	83.41	31.....	97.32	100.00
4.....	87.21	89.63	18.....	100.00	100.00	32.....	66.07	55.82
5.....	100.00	(a)	19.....	98.58	98.58	33.....	100.00	100.00
6.....	10.00	100.00	20.....	45.43	73.00	34.....	100.00	100.00
7.....	100.00	100.00	21.....	100.00	100.00	35.....	100.00	76.92
8.....	92.00	92.00	22.....	98.21	97.27	36.....	100.00	100.00
9.....	100.00	100.00	23.....	95.47	(a)	37.....	60.54	30.49
10.....	98.50	100.00	24.....	65.26	65.26	38.....	89.90	(a)
11.....	97.55	(a)	25.....	80.83	72.41	39.....	97.09	97.09
12.....	92.41	90.14	26.....	94.66	94.10	Total.	89.50	88.26
13.....	98.29	(a)	27.....	99.96	33.80			
14.....	100.00	100.00	28.....	92.54	94.63			

a None authorized.

It will be noted that in only 11 of the 39 combinations was the authorized amount of common stock in reality issued, and in only 12 was the entire amount of preferred stock issued. In a few cases the amount issued formed but a small percentage of that authorized, but the per cent of total stock issued of the total amount authorized by the 39 combinations was, as will be noted from the table, 89.50 for the common stock and 88.26 for the preferred.

The next table shows for these 39 combinations the per cent of common stock, preferred stock, and bonds of the total stock issued:

PER CENT OF COMMON STOCK, PREFERRED STOCK, AND BONDS OF TOTAL STOCK ISSUED, FOR 39 COMBINATIONS.

[One combination, reporting no bonds issued but not reporting amount of stock issued, has been excluded from this table.]

Marginal number.	Per cent of common of total stock issued.	Per cent of preferred of total stock issued.	Per cent of bonds of total stock issued.	Marginal number.	Per cent of common of total stock issued.	Per cent of preferred of total stock issued.	Per cent of bonds of total stock issued.
1.....	50.06	49.96	(a)	22.....	50.24	49.76	7.99
2.....	57.01	42.99	(a)	23.....	100.00	(a)	(a)
3.....	50.00	50.00	(a)	24.....	50.00	50.00	13.52
4.....	43.77	56.23	83.44	25.....	52.59	47.41	(a)
5.....	100.00	(a)	(a)	26.....	50.15	49.85	(a)
6.....	36.17	63.83	(a)	27.....	74.73	25.27	(a)
7.....	50.00	50.00	(a)	28.....	66.17	33.83	(a)
8.....	50.00	50.00	(a)	29.....	60.44	39.56	(a)
9.....	66.67	33.33	(a)	30.....	59.60	40.40	(a)
10.....	98.50	1.50	25.00	31.....	79.56	20.44	(a)
11.....	100.00	(a)	62.47	32.....	59.68	40.32	(a)
12.....	65.56	34.44	(a)	33.....	80.00	20.00	5.71
13.....	100.00	(a)	37.62	34.....	66.67	33.33	(a)
14.....	50.00	50.00	(a)	35.....	50.00	50.00	57.00
15.....	55.14	44.86	(a)	36.....	54.24	45.76	4.34
16.....	57.58	42.42	(a)	37.....	66.51	33.49	(a)
17.....	56.74	43.26	(a)	38.....	100.00	(a)	c91.33
18.....	55.56	44.44	(b)	39.....	50.00	50.00	(a)
19.....	50.00	50.00	(a)				
20.....	55.45	44.55	(a)	Total ..	67.30	42.70	d3.63
21.....	33.33	66.67	(a)				

a None issued.
b Not reported.

c Including debentures.
d Thirty-eight combinations reporting.

The custom of issuing preferred stock in lieu of bonds has become prevalent of late years. In this table it will be noted that when a large amount of bonds has been issued, in most cases either the combination has no preferred stock or its amount is very small. One noteworthy exception, No. 35, shows the preferred and common stock issued in equal amounts and bonds issued to a still greater amount. It is probable that the bonds which have been issued in connection with preferred stock were issued either to supply some ready cash or to take the place of bonds of constituent companies, which had already been issued.

The preferred stock has, of course, ordinarily, the same precedence over common stock as regards the claim upon the profits as have bonds; while, where preferred stock is issued in lieu of bonds, failure to earn the fixed amount required to meet the annual obligations does

not throw the company into the hands of a receiver, but leaves it in the hands of its stockholders and directors.

CONDITIONS OF PREFERRED STOCK.—In the case of all the combinations under consideration (33 having reported on this subject) the preferred stock has the same voting privileges as the common stock.

One of these combinations pays 5 per cent on its preferred stock; seven, 6 per cent; nineteen, 7 per cent; four, 8 per cent, and one, 12 per cent. In one case a combination pays 8 per cent on one half of its preferred stock issued and 6 per cent on the other half.

In three cases preference is especially mentioned also in the event of liquidation, the preferred shareholders being entitled to receive par value of their stock before any of the proceeds are paid to holders of common stock. It is probable that this provision holds in other cases as well, but that returns were not fully made in this particular by the combinations.

In twenty-four instances dividends on preferred stock are cumulative, the common stock not receiving any dividends until all unpaid dividends on preferred stock have been met. While in many of these combinations the preferred stock has been issued for purposes of investment with the intention that they shall take the place of bonds, it will be noted that the rate of interest mentioned is considerably higher than that paid on bonds of stable companies of the present day, and even higher than that paid on bonds issued by these same companies.

The preceding table shows also that in 39 combinations 57.30 per cent of the entire stock issued was common stock, 42.70 preferred, while the amount of bonds issued by 38 combinations reporting was but 3.53 per cent of the total stock. A comparison of these figures with those of the railways of the United States as presented in the report for 1898 of the statistician of the Interstate Commerce Commission, in which the amount of funded debt is greater than that of stock (stock 49.81 per cent and funded debt 50.19 per cent of the entire capitalization), shows how great the change has been in the plan of organizing these industrials from that formerly followed in the organization of railways.

BONDS.—Out of 39 combinations which reported on the subject of bonds but 10 had issued any, 2 were authorized to issue bonds but had not done so, while 27 reported that they were not authorized to issue bonds. The amount of bonds authorized for the 12 combinations was \$56,161,000, whereas the actual amount issued and assumed was \$44,480,800, this latter amount including in one case over \$3,000,000 in bonds assumed with the plants included in the combination in excess of the amount of bonds reported as authorized. It is common in the case of many of the combinations that have issued preferred stock to forbid the issuance of bonds excepting by special vote of the stockholders. In

many cases, too, the debts of constituent companies are all paid before they enter the combination. This change of the policy of the combinations, which resulted in the paying off of large amounts of indebtedness on the part of the constituent members before the combinations were formed, made naturally a very material difference in the methods of doing business and in the relations of these business establishments to the banks. Many banks that for a long period of time had been substantially carrying business enterprises were at the time of the reorganizations paid off entirely, and throughout many sections of the country the banking business was thereby put upon a much more stable basis than had been the case for many years, though in other cases they lost good customers. On the other hand, in the disposition of the securities of the combinations, many of the larger banks, especially in the larger cities, became stockholders in the combinations, and thereby some invested considerable of their capital in the shares of the combinations or received them as collateral. While in the investigation it was not possible to get any definite figures regarding these two modes of procedure in the transfer of the business of the constituent companies to the combinations, there can be little doubt that the country banks found in very many cases their old debts paid off rather unexpectedly, and found likewise that they had lost regular borrowers, whereas, on the other hand, the larger city banks sometimes received either directly as property or indirectly as collateral a large proportion of shares of stock of some of the newer industrials which they have found it difficult to dispose of. It is a matter for regret that the statistics of this subject have not as yet been secured to any material extent.

Two of the 10 combinations which have issued bonds pay 5 per cent interest thereon, 6 of them pay 6 per cent, 1 pays 6 per cent cumulative on debenture bonds and 5 per cent on others, and 1 pays 6 per cent on bonds issued and makes no report as to rate of interest on bonds assumed. In the majority of cases these bonds have apparently been issued directly in exchange for property, only 4 combinations reporting that they have sold bonds for cash. The bonds sold for cash amounted to \$19,659,000, whereas those exchanged for property amounted in all to \$24,764,500. In addition \$57,300 in bonds were issued for purposes not reported.

HOLDINGS OF STOCK.—It has been frequently true that the affairs of the larger corporations have been directed almost solely by a few of the larger stockholders, even when the corporations were public in their nature and their shares were sold on the stock exchange and distributed widely among thousands of shareholders. In not a few instances it has been asserted that one individual has held a controlling number of shares in some of the great corporations. The following table gives the percentages of preferred and common stock held by the

largest single holder and by the 5 largest holders in the 24 combinations reporting on this subject:

PER CENT OF STOCK HELD BY LARGE HOLDERS, FOR 24 COMBINATIONS.

Marginal number.	Common stock.		Preferred stock.		Marginal number.	Common stock.		Preferred stock.	
	Per cent held by the largest holder.	Per cent held by five largest holders.	Per cent held by the largest holder.	Per cent held by five largest holders.		Per cent held by the largest holder.	Per cent held by five largest holders.	Per cent held by the largest holder.	Per cent held by five largest holders.
1.....	4.60	17.82	6.03	18.09	14.....	19.61	53.21	15.94	55.11
2.....	12.99	38.33	18.09	36.84	15.....	12.61	35.58	14.53	45.17
3.....	4.74	13.68	4.03	8.21	16.....	4.92	20.87	9.03	17.94
4.....	4.16	14.14	4.60	16.43	17.....	22.44	56.23	20.80	36.16
5.....	(a)	52.55	(b)	(b)	18.....	14.87	42.70	13.03	32.11
6.....	19.62	67.94	27.83	72.04	19.....	9.42	19.37	8.07	17.70
7.....	24.53	43.67	24.53	43.67	20.....	91.92	94.85	94.88	96.41
8.....	1.78	8.01	1.78	8.01	21.....	84.56	98.52	87.03	96.35
9.....	24.40	55.85	13.00	45.20	22.....	19.82	35.38	16.40	23.98
10.....	2.71	10.71	4.06	10.42	23.....	27.86	64.05	(b)	(b)
11.....	10.13	33.47	11.98	32.72	24.....	10.22	20.57	30.37	41.90
12.....	22.65	49.57	31.04	53.14					
13.....	11.65	35.61	(b)	(b)	Total ..	c 19.71	32.91	16.81	27.78

a Not reported.

b None issued.

c Twenty-three combinations reporting.

Of course these figures are not sufficient to determine whether or not in a specified case a certain number of shareholders can absolutely control the affairs of the corporation by the election of directors. That can not be known without knowing the details of the management of the separate corporations. In many instances the holders of a minority of stock can readily enough elect directors and control the corporation. In the two cases given in the table, in which a large majority of the stock, both common and preferred, is held by one person, it is proper to say that this person is in those cases a corporation, one of those that have been formed for the purpose chiefly of holding the stocks of constituent companies which come into the organization. These are, therefore, not to be considered typical cases or representative of the power of single individuals. So far as the 5 largest shareholders are concerned, it appears that in only 8 combinations out of the 24 reporting is a majority of the common stock held by them, and in only 5 is a majority of the preferred stock so held.

It is probably true, however, that in many more cases, although the 5 largest holders may actually own but a minority of the stock, they are still able, substantially, to control the corporation. The figures nevertheless seem to make it perfectly clear that many of the opinions of the public regarding the shareholding in these corporations are at fault, and that the actual holdings of the largest stockholders are often much less than has been popularly supposed.

CONSIDERATION FOR STOCK ISSUE: COMMON STOCK.—Of much greater significance is the consideration for which stock has been issued. The belief has been common that a large part of the stock issued by the industrial companies has not had back of it substantial

values, but that most of it was water. From the returns received it appears that of the combinations reporting, out of more than 30 only 9 reported the common stock issued for cash; in only one case was cash the only consideration mentioned. Usually the consideration was given as "property," or frequently as "property, franchises, and good will;" in two instances "good will" and in one instance "good will, etc.," was given as the consideration. It appeared in many of the combinations that the common stock was issued to some extent for good will. In several cases apparently no distinction had been made between common and preferred stock in this particular, but both had been issued in lump sums for "property, franchises, and good will," without any effort being made by the organizers of the company to draw the distinction clearly. In one case it was reported that common stock was issued as a bonus in connection with the preferred stock. In several instances, too, the stock of the combination was issued in exchange for the stock of the constituent companies at different rates of exchange.

CONSIDERATION FOR STOCK ISSUE: PREFERRED STOCK.—As regards the preferred stock the situation seems somewhat different. In 14 cases preferred stock was issued for cash. In the entire list the expression "good will" as the consideration for the issuance of stock appears much less frequently, and where good will is expressed as one of the considerations it is regularly associated with franchises and property. In these cases apparently no distinction has been made in the consideration for which preferred and common stocks were issued.

As previously stated, the voting privileges of preferred stock are the same as those of common stock in the 33 combinations reporting. This means substantially an equal share in all particulars in the election of the executive and managing officers, inasmuch as out of 38 of the combinations reporting, the executive or managing officers are appointed by the board of directors in 35 cases and elected by the stockholders in only 3.

STOCK WATERING.—The following table, showing the per cent of stock issued represented by the original cost of the plants, the cost of reproducing plants, and the working capital of the combinations, throws considerable light upon the question of stock watering, although it would have been better could information have been secured from more of the combinations on this special subject. In many cases the combinations did not have and could not secure the records of the plants entering the combination. Particularly was this true when the combinations had been in existence for several years. Under those circumstances the cost of building the plants, of course, was not obtainable.

In practically all of the same combinations it was of course likewise difficult, if not impossible, to secure any accurate figures with refer-

ence to the cost of the plants now actively operated by the combination. The cost of reproduction had, naturally, to be an estimate. In many instances the managers were unwilling to make an estimate as to the cost of building plants of a named capacity without securing definite figures from experts; but in other cases where plants had been built within a comparatively short time, or where there was a general figure which was common in making estimates for building, such estimates were furnished. The result appears in the following table:

PER CENT OF STOCK ISSUED REPRESENTED BY ORIGINAL COST OF PLANTS, BY COST OF REPRODUCING PLANTS, AND BY WORKING CAPITAL, FOR 24 COMBINATIONS.

Marginal number.	Per cent of original cost of constituent plants of stock issued.	Per cent of original cost of active plants of stock issued.	Per cent of cost of reproducing active plants of stock issued.	Per cent of working capital of stock issued.	Per cent of working capital of cost of reproducing active plants.
1.....	6.18	6.18	6.18	2.82	45.56
2.....	(a)	(a)	(a)	24.34	(a)
3.....	(a)	(a)	(a)	13.61	(a)
4.....	200.00	200.00	250.00	100.00	40.00
5.....	68.83	68.83	(a)	(a)	(a)
6.....	48.00	48.00	60.00	8.00	13.33
7.....	15.76	15.76	(a)	.76	(a)
8.....	100.00	100.00	(a)	.67	(a)
9.....	125.00	(a)	(a)	38.98	(a)
10.....	(a)	(a)	38.20	5.46	14.29
11.....	91.16	90.59	93.91	16.26	17.32
12.....	(a)	(a)	60.61	12.12	20.00
13.....	29.04	(a)	(a)	13.48	(a)
14.....	(a)	(a)	26.01	20.00	76.90
15.....	(a)	(a)	(a)	13.33	(a)
16.....	(a)	(a)	(a)	59.24	(a)
17.....	30.65	30.65	45.97	61.29	133.33
18.....	(a)	(a)	26.93	47.28	175.57
19.....	71.24	66.92	86.35	58.28	6.75
20.....	(a)	(a)	50.50	30.30	60.00
21.....	(a)	(a)	67.26	20.69	80.62
22.....	61.86	61.86	75.42	6.44	8.54
23.....	(a)	(a)	86.56	48.67	133.11
24.....	(a)	(a)	7.12	10.40	145.96
Total	b 55.58	c 56.92	d 48.12	e 16.30	f 35.53

a Not reported.

b Twelve combinations reporting.

c Ten combinations reporting.

d Fifteen combinations reporting.

e Twenty-three combinations reporting.

The per cent of the original cost of the plants entering into the combinations of the stock issued by the 12 combinations reporting was 55.58. The per cent of the original cost of the active plants of the combinations of the stock issued in the 10 combinations reporting was 56.92; whereas the estimated cost of reproduction of plants of the same capacity as those actively engaged in manufacturing was 48.12 per cent of the capital stock in the case of the 15 combinations reporting.

This is perhaps not the place to go far into a discussion of the proper basis of capitalization for manufacturing establishments. Some of the States in their laws, and many people in the discussion of the question, assume that there should be a capitalization of only the value of the plants, presumably their reproduction value or their cost of building, together with any running capital that may need to be kept on hand

in the form of cash or cash credits. Many business men, on the other hand, are inclined to believe that the earning power of the plants should be the basis of capitalization, laying thus much greater emphasis upon good will, the value of brands or patents, and the ability of the manager, than do those who take opposite views. If an establishment can pay dividends of, let us say, 6 per cent on a capitalization of \$1,000,000, they would say, "Let it be capitalized at \$1,000,000, even though the plants could be reproduced at a cost of \$200,000."

It should be borne in mind, however, that if the contentions of many people regarding the power of the large industrial combinations to raise prices beyond competitive rates are justified, this principle of capitalization according to earning capacity would mean simply capitalization of the power of monopoly. This might, of course, be covered by the expressions "good will," "business experience," "business ability," or what not.

The table immediately preceding shows some facts regarding the few combinations from which it was possible to secure reports regarding the original cost of their plants and the estimated cost of reproducing their active plants, the amount of their working capital, etc. While one of the combinations, No. 4, capitalized over 30 years ago, reports that the cost of reproducing its active plants would be two and one-half times the par value of the stock issued, and its working capital would be 40 per cent of this cost of reproduction, most of the establishments are of quite a different type. For example, No. 14 reports that its active plants could be reproduced at a cost equal to about one-fourth its capital stock and that its working capital is 20 per cent of its stock issue. No. 24 shows the percentage of values of capital stock as very much lower still. Assuming these totals to be representative of the combinations, it will be seen that, taking the working capital and the cost of reproduction of the active plants together, the capital actually invested at its cash value would amount to 64.42 per cent of the nominal capitalization. If in place of the cost of reproducing the active plants the original cost of those plants be substituted the above per cent will be increased to 73.22. It should be recalled, however, that this total includes the very low capitalization of two or three establishments, especially that of No. 4, which makes the total of stock issued for good will very much less than it otherwise would be.

It is probably true also that the establishments reporting do not represent, on the whole, the most speculative of the larger combinations whose securities are placed upon the market, and that in consequence the result shown here is much more favorable as regards stock watering than the average of industrials dealt in on the stock exchange. If we grant that such is the case, the table shows that some of the more conservative larger industrial combinations are capitalized at a good deal more than cost value, whether or not that is seriously prejudicial

to the interests of either the stockholders after the first ones, or of the public at large who are compelled to pay dividends on this amount of so-called watered stock.

It is perhaps of importance to emphasize again the question of the working capital involved in connection with these manufacturing establishments, inasmuch as most of those who argue against stock watering ignore entirely the fact that every successful manufacturing establishment must have in addition to the working plant also a working capital, which often needs to be a large percentage at least of the value of the plants themselves. Under those circumstances, naturally, the capitalization should be large enough to cover this working capital as well as the value of the plants.

REPORTS TO STOCKHOLDERS.—It is commonly believed that one of the chief evils of large corporations is the lack of responsibility of the directors to the stockholders. In many cases the directors hold their positions for a series of years, and practically never make reports that are calculated to give to the individual stockholders much light on the actual methods of management. The returns from this investigation would seem, on the whole, to justify this general view. Out of 33 corporations replying to a question regarding reports, one is in the habit of giving quarterly reports to the stockholders; one makes reports when called for; two stated that no reports are required; the remainder make reports annually. On the other hand, it is generally true that the nature of the reports is largely in the discretion of the directors themselves. One company states that its annual report covers "every essential point pertaining to business," but this is a company which has comparatively few stockholders and is largely private in its nature. In one case the report, if fairly made, would show the actual situation, the statement being that "assets, liabilities, earnings, and profits" are given. Another company speaks of reporting the "comparative conditions of cost of materials, of transportation, of labor, and so on," but nearly all simply state that they report upon "the general affairs of the company," or the "general condition of the business," or "the financial condition," etc., without going into details, the report evidently being what the directors wish.

PROMOTERS' PROFITS.—Little light was thrown by the investigation upon the subject of the profits of promoters. Sixteen combinations, including many of the larger ones, failed to furnish any information upon this point. In 20 instances it was reported that nothing was paid promoters; in 3 cases amounts, running in one case above \$500,000 in common stock, were spoken of as the profits of the promoters; but the answers were not so numerous that a general conclusion regarding their profits can safely be drawn.

SAVINGS FROM COMBINATION.—It is usually the case that a prospectus

issued to manufacturers with the intention of persuading them to come into a combination sets forth various savings that can be made by combination—savings in salaries and wages, in cost of advertising, in transportation, etc.

ADVERTISING.—Generally speaking, in the combinations reporting in this investigation there was little definite information given regarding the savings or losses in connection with advertising. In one case the statement was made that three or four times as much was spent in advertising by the combination as had been spent by the constituent companies. In this case the combination is extending its business widely, even into foreign countries, where it was not profitable for the smaller establishments to go. In a few instances the specific percentage of the cost of advertising saved was given, this per cent being from about 40 up to 85, or even more. In other cases there was no saving whatever from this source.

TRANSPORTATION.—To the question whether the combination had been able to make savings in cost of transportation, owing to lower rates given to the combination for the same goods and distances, few replied. In 5 cases the statement was distinctly made that no lower rates had been secured. One company stated that 1 per cent of the cost of transportation was saved, and in several others amounts running into the thousands of dollars were reported as the estimated saving per year from this source.

DISCRIMINATING RATES.—To the question as to whether any discriminating rates had been received, 14 combinations made no report whatever. As regards discriminating rates, one corporation stated that it had an arrangement with some companies which allowed the shipping of net weights instead of gross weights, whereas 26 distinctly stated that they received no such favors. To the question as to whether any saving was made by shipping from the nearest plants, the replies were various. Five received no benefit in this way. Twenty-seven of the combinations failed to answer, but the others were all of them of the opinion that there was a considerable saving from this source. In one case the estimate was put at from \$500,000 to \$1,000,000 per annum; in another the savings on advertising and transportation economies were estimated at considerably over \$500,000; another mentioned the sum of \$400,000 as the savings from various economies. Naturally those combinations whose products are bulky and heavy succeeded in making the largest percentage of saving from this source.

PATENTS.—Out of the 27 combinations reporting as to capital payments allowed constituent companies on account of patents, 25 reported that nothing was allowed, one reported an allowance of common stock, and one reported allowances of both common and preferred stock and

over \$200,000 in cash. Twenty-six combinations reported that no rent on account of patents was allowed the constituent companies, and 15 combinations made no report on this subject.

ARRANGEMENTS WITH MAKERS OF MACHINERY.—In answer to the inquiry as to whether the industrial combinations had arrangements with manufacturers of machines to furnish them only to the combinations, and not to their competitors, 33 out of 41 combinations specifically stated that this was not their practice, the others making no reply. Three combinations held an interest in factories that produced machines needed by them, and one reported that “companies whose stocks were held manufactured almost everything used in the business.” It is possibly true that in certain cases in which this question was not answered there may also have been some arrangement of that kind, inasmuch as specific testimony offered elsewhere seems to make it clear that this practice prevails. In 12 cases the combination itself, or some of its plants, manufactured all or part of the machinery used by it. Here, again, it is perhaps possible that these manufacturing corporations were taken into the combination with the thought that in this way a certain limitation could be placed upon the number of machines produced for competitors. No such evidence, however, appears directly from this investigation.

SAVING IN QUANTITY OF MATERIAL.—To the question as to whether, owing to improved methods of production, less material per unit of product was needed under the combination than had been needed by the separate smaller plants existing before the combination was made, a few were able to give definite answers. In 5 cases it was reported that less material per unit of product was needed, the amount varying from 2 or 3 to 5 per cent less, and in one case it was 10 per cent less. Sixteen of the combinations answered the question directly in the negative.

PURCHASE OF RAW MATERIAL.—A few of the combinations reported a considerable saving from more advantageous buying of their raw material. In one a saving of 1 per cent was mentioned; in another 3 per cent of the gross cost; in still a third, 10 per cent; another mentioned a round saving of \$500,000 per year, while others simply stated that a large sum or a small sum was saved. The majority of those reporting, however, did not answer this question specifically.

CLOSING OF PLANTS.—Seventeen of the combinations reported that some of the plants which have been taken into the organization have been closed, whereas 16 stated that none of their plants have been closed. Of those organizations which have closed plants, most, however, convey the impression that there has been no lessening of the output owing to the closing of plants, but that the plants have been closed for purposes of economy in management, and not at all

for the purpose of limiting the output. For example, the statement is made that plants in separate buildings have been put together into one building, at times with an increased capacity. Likewise plants have been removed from less advantageous to more advantageous situations. One combination reports that useless and worn-out plants were from time to time abandoned and more available ones erected, the capacity being constantly increased. The proportion of the capacity of plants closed to the total manufacturing capacity of the combinations has varied from 1 per cent to as high as 25 per cent.

INEFFICIENCY THROUGH CARELESS MANAGEMENT.—Most of the more ardent advocates of the competitive system are of the opinion that the pressure from competition is necessary in order to secure the most efficient work and the greatest care in saving waste. To the question as to whether there had been any loss of efficiency apparent in the combinations through carelessness brought about by the lack of competition and the certainty of profits, the answers were quite general. Twenty-one made the statement that no such loss of efficiency appeared, while 7 others went so far as to assert positively that there had been a distinct increase in efficiency. The reason for this was stated to be the competitive cost system. It has been explained that the managers of the different plants working under the combination are each compelled to keep careful records of the cost of production in his own plant, and that the various plants are then frequently compared one with the other as regards their efficiency in this particular. In this way, without there being any competition among the different plants so far as the marketing of the product is concerned, there is brought about a most vigorous competition among them in manufacturing, a competition more searching in its nature than any that could come from entirely independent establishments, owing to the fact that the exact cost is known and the exact degrees of difference in efficiency can be measured. If one may judge from the reports furnished, this factor of loss of efficiency through certainty of profits has not appeared to any noteworthy extent in any of the large combinations reporting. The central office is able to keep accurate note of the efficiency of the different plants in most cases, inasmuch as frequent reports are required—in 18 cases daily, in other cases weekly or monthly; and most of the combinations, in addition to these regular reports sent in from the different establishments themselves, are also in the habit of sending special inspectors to examine the work done in the different plants, and to make in this way personal reports, as well as personal suggestions, to the superintendents of the different establishments.

PROFITS.—Some of the older industrial combinations, whose dividends have been published in the trade journals and elsewhere, and are well known to the public, make high profits. For example, the

dividends of the Standard Oil Company and those of the American Sugar Refining Company have been as follows:

DIVIDENDS PAID BY THE STANDARD OIL COMPANY, 1882 TO 1899.

[Data for 1882 to 1898 are from the Preliminary Report on Trusts and Industrial Combinations of the Industrial Commission, p. 99.]

Year.	Dividend (per ct.).	Year.	Dividend (per ct.).	Year.	Dividend (per ct.).	Year.	Dividend (per ct.).
1882.....	5½	1887.....	10	1892.....	12.21	1897.....	33
1883.....	6	1888.....	11½	1893.....	12	1898.....	30
1884.....	6	1889.....	12	1894.....	12	1899.....	33
1885.....	10½	1890.....	12	1895.....	17		
1886.....	10	1891.....	12	1896.....	31		

DIVIDENDS PAID ON THE COMMON STOCK OF THE AMERICAN SUGAR REFINING COMPANY, 1891 TO 1899.

Year.	Dividend (per ct.).	Year.	Dividend (per ct.).	Year.	Dividend (per ct.).	Year.	Dividend (per ct.).
1891.....	8	1894.....	12	1896.....	12	1898.....	12
1892.....	9	1895.....	12	1897.....	12	1899.....	12
1893.....	22						

The returns given in the schedules of the present investigation vary considerably, but in most cases as yet the profits have not been high, although, as will be recalled, the stock has often been issued to some extent for good will. In most of the newer organizations, those formed in 1898 and 1899, from which reports have been received, the regular dividends have been paid upon the preferred stock, but dividends have not yet been declared on the common. In combinations where the stock has been all common, a fair dividend has been paid. When one considers that a considerable amount of stock has been issued for good will, and not as against actual property invested, these returns can not be considered unfavorable from the point of view of the combination. The special study of the effect of combinations upon prices will show somewhat more clearly their probable effect upon profits.

In addition to the dividends that have been declared, several of the combinations have also, out of the profits, set aside a surplus, or have expended considerable sums in the enlargement of their plants. In 6 combinations, for example, 3 per cent of the total capital stock issued has been used out of the profits in the enlargement of the plants, whereas in one of the older combinations as high as 20 per cent has been so employed. In the case of 4 combinations making this report the amount expended from the profits averaged 5 per cent and in one case was more than 8 per cent of the amount it would have cost to reproduce the plants. Sixteen combinations report that they have laid up a surplus of 7.27 per cent of the total stock issued. In one instance the per cent amounts to more than 38, in another to nearly 30. Eight combinations giving an account of the surplus and the

cost of reproducing their plants furnish the information that about 15 per cent of the cost of reproducing the plants has been laid aside in surplus out of the profits. The two tables following give the details regarding the reports made on these last-mentioned special subjects. It should be kept in mind, also, that in reckoning these profits and this surplus a fair allowance has generally been made for annual depreciation. The amount varies in the different reports, sometimes being mentioned in terms of percentages, sometimes in the lump sum; but it is evident that the methods of bookkeeping adopted by those establishments which have made returns are conservative.

PER CENT OF PROFITS EXPENDED IN ENLARGEMENT AND IMPROVEMENT OF PLANTS OF TOTAL STOCK ISSUED, OF ORIGINAL COST OF CONSTITUENT PLANTS, AND OF COST OF REPRODUCING PLANTS, FOR 6 COMBINATIONS.

Marginal number.	Per cent of profits expended in enlargement and improvement of plants of—		
	Total stock issued.	Original cost of constituent plants.	Cost of reproducing plants.
1.....	1.58	(a)	(a)
2.....	20.00	10.00	8.00
3.....	8.89	(a)	(a)
4.....	.76	(a)	2.80
5.....	1.73	2.42	2.00
6.....	6.13	9.91	8.13
Total	3.00	b 6.46	c 4.99

a Not reported.

b Three combinations reporting.

c Four combinations reporting.

PER CENT OF SURPLUS OF TOTAL STOCK ISSUED, OF ORIGINAL COST OF CONSTITUENT PLANTS, AND OF COST OF REPRODUCING PLANTS, FOR 16 COMBINATIONS.

Marginal number.	Per cent of surplus of—			Marginal number.	Per cent of surplus of—		
	Total stock issued.	Original cost of constituent plants.	Cost of reproducing plants.		Total stock issued.	Original cost of constituent plants.	Cost of reproducing plants.
1.....	3.84	(a)	(a)	10.....	11.18	(a)	42.99
2.....	.42	(a)	(a)	11.....	10.96	(a)	(a)
3.....	10.00	5.00	4.00	12.....	.19	(a)	(a)
4.....	38.18	30.54	(a)	13.....	7.02	(a)	26.06
5.....	3.38	(a)	8.83	14.....	5.64	7.92	6.53
6.....	29.50	(a)	(a)	15.....	.002	(a)	.004
7.....	8.14	(a)	(a)	16.....	12.41	20.06	16.46
8.....	7.69	(a)	12.70	Total ..	7.27	b 16.17	c 14.98
9.....	4.14	14.25	(a)				

a Not reported.

b Five combinations reporting.

c Eight combinations reporting.

THE FACTOR SYSTEM.—This investigation, as well as some others that have been undertaken, does not seem to warrant the opinion which has been at times expressed that the combinations had their tendency toward monopoly strengthened by selling their products through factors whose connection with the combination was such that it was enabled to keep practically entire control of the market and to fix the price. About half of the combinations reporting sell direct to consumers. Two combinations report that while middlemen were employed by constituent companies none are now employed. One

combination reports a slight decrease in the number and one a considerable decrease. Only two combinations specify the amounts saved annually—\$15,000 in one instance and \$200,000 in the other.

WAGES.—Next in importance to the effect of industrial combinations upon prices, if indeed not equally important, is their effect upon wages. Owing to the fact that the books of many of the corporations before they entered into the combinations are not accessible, it has been possible to obtain complete returns in comparatively few cases. Nevertheless, when returns have been made, they have, on the whole, been so complete and definite that the results are worthy of note, even though the number of establishments will not warrant one in placing too much reliance upon conclusions as supporting a general rule. The following table shows for each of 13 combinations the percentage of employees paid each classified rate of wages per week, before and after the formation of the combinations. The employees have been classed as skilled and unskilled laborers, clerks, and others, superintendents, foremen, and traveling salesmen being excluded.

PER CENT OF EMPLOYEES PAID EACH CLASSIFIED RATE OF WAGES PER WEEK BEFORE AND AFTER THE FORMATION OF THE COMBINATION, FOR EACH OF 13 COMBINATIONS.

Mar- ginal num- ber.	Rate of wages paid per week.	Skilled laborers.		Unskilled laborers.		Clerks.		Others (not in- cluding superin- tendents, fore- men, and travel- ing salesmen).	
		Under uniting com- panies.	Under com- bina- tion.	Under uniting com- panies.	Under com- bina- tion.	Under uniting com- panies.	Under com- bina- tion.	Under uniting com- panies.	Under com- bina- tion.
1	Under \$5.....	8.84	10.53	12.82	13.46	.....	1.67	.....	.....
	\$5 or under \$6.....	4.28	3.94	12.82	6.73	3.28	3.33	.....	.....
	\$6 or under \$7.....	2.51	2.09	14.53	23.08	4.92	4.17	.....	.....
	\$7 or under \$8.....	3.82	7.40	27.35	25.00	5.74	6.67	.....	.....
	\$8 or under \$9.....	4.38	4.34	3.42	9.61	5.74	7.50	.....	.....
	\$9 or under \$10.....	5.12	4.82	16.24	17.31	15.57	11.66	.....	.....
	\$10 or under \$15.....	39.39	36.34	12.82	4.81	36.88	37.50	.....	.....
	\$15 or under \$20.....	26.54	25.56	.....	.....	18.85	17.50	.....	.....
	\$20 or under \$25.....	5.12	4.98	.....	.....	4.92	5.83	.....	.....
	\$25 or under \$30.....	.....	.....	.....	.....	2.46	2.50	.....	.....
	\$30 or under \$35.....	.....	.....	.....	.....	1.64	1.67	.....	.....
	\$35 or under \$40.....	.....	.....	.....	.....	.....	.....	.....	.....
	\$40 or under \$45.....	.....	.....	.....	.....	.....	.....	.....	.....
	\$45 or under \$50.....	.....	.....	.....	.....	.....	.....	.....	.....
	\$50 or over.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00	.....	.....
2	Under \$5.....	.....	.....	1.39	.95	2.04	3.08	.....	.....
	\$5 or under \$6.....	.....	.....	.83	1.23	1.02	2.27	.....	.....
	\$6 or under \$7.....	.....	.....	3.48	.55	3.06	.76	.....	.....
	\$7 or under \$8.....	.....	.....	2.78	1.36	2.04	3.79	.....	.....
	\$8 or under \$9.....	.....	.23	16.55	25.75	3.06	2.27	.....	.....
	\$9 or under \$10.....	15.44	9.01	47.71	64.85	8.06	2.27	.....	.....
	\$10 or under \$15.....	65.32	76.68	27.26	5.31	29.59	28.79	.....	.....
	\$15 or under \$20.....	16.39	10.62	.....	.....	30.61	28.79	.....	.....
	\$20 or under \$25.....	2.61	2.54	.....	.....	11.23	14.39	.....	6.67
	\$25 or under \$30.....	.....	.....	.....	.....	5.10	6.06	.....	13.33
	\$30 or under \$35.....	.....	.46	.....	.....	.....	2.27	.....	13.33
	\$35 or under \$40.....	.24	.23	.....	.....	6.13	2.27	.....	.....
	\$40 or under \$45.....	.....	.23	.....	.....	.....	.76	.....	6.67
	\$45 or under \$50.....	.....	.....	.....	.....	3.06	1.52	20.00	.....
	\$50 or over.....	.....	.....	.....	.....	.....	.76	80.00	60.00
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

PER CENT OF EMPLOYEES PAID EACH CLASSIFIED RATE OF WAGES PER WEEK BEFORE
AND AFTER THE FORMATION OF THE COMBINATION, FOR EACH OF 13 COMBINATIONS—
Continued.

Marginal number.	Rate of wages paid per week.	Skilled laborers.		Unskilled laborers.		Clerks.		Others (not including superintendents, foremen, and traveling salesmen).	
		Under uniting companies.	Under combination.	Under uniting companies.	Under combination.	Under uniting companies.	Under combination.	Under uniting companies.	Under combination.
3	Under \$5.....			3.55	4.51		5.44	1.72	4.34
	\$5 or under \$6.....			10	2.64	1.54	2.04		1.74
	\$6 or under \$7.....			16.73	14.81		6.12	1.72	17.39
	\$7 or under \$8.....			37.04	28.25	3.08	4.08	5.17	20.00
	\$8 or under \$9.....			18.32	18.47	33.84	12.25	1.72	17.39
	\$9 or under \$10.....		.22	24.26	29.49		3.40	10.35	2.61
	\$10 or under \$15.....	87.30	86.59		1.83	49.23	29.93	63.80	14.78
	\$15 or under \$20.....	11.62	12.41			9.23	10.21	8.62	6.09
	\$20 or under \$25.....	1.08	.56			1.54	6.12		6.09
	\$25 or under \$30.....		.22				7.49	3.45	3.48
	\$30 or under \$35.....					1.54	4.08	3.45	1.74
	\$35 or under \$40.....						2.72		.87
	\$40 or under \$45.....						2.04		.87
	\$45 or under \$50.....						2.72		.87
	\$50 or over.....						1.36		1.74
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
4	Under \$5.....			5.50	5.53				
	\$5 or under \$6.....			9.00	9.05	1.49	1.64		
	\$6 or under \$7.....			5.00	5.02	1.49	1.64		
	\$7 or under \$8.....			7.50	7.54	1.49	1.64		
	\$8 or under \$9.....			6.50	6.53				
	\$9 or under \$10.....	4.06	4.12	26.00	26.13	8.95	9.84		
	\$10 or under \$15.....	26.90	27.32	40.50	40.20	16.42	18.03		
	\$15 or under \$20.....	54.31	55.15			25.37	27.87	100.00	100.00
	\$20 or under \$25.....	7.61	7.73			13.43	14.75		
	\$25 or under \$30.....	1.52	1.55			17.91	18.03		
	\$30 or under \$35.....	1.02	1.03			2.99	1.64		
	\$35 or under \$40.....	2.54	1.03			2.99			
	\$40 or under \$45.....	.51	.52			4.48	3.28		
	\$45 or under \$50.....	1.02	1.03			2.99	1.64		
	\$50 or over.....	.51	.52						
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
5	Under \$5.....			.33	1.22	5.00	2.40		2.57
	\$5 or under \$6.....			.71	.51	7.50	.80		10.25
	\$6 or under \$7.....			.87	.66	2.50	2.40	7.41	5.12
	\$7 or under \$8.....			2.01	1.78	5.00	3.20		
	\$8 or under \$9.....			3.87	1.78	2.50	10.40		
	\$9 or under \$10.....	2.20		19.66	6.51	10.00			2.57
	\$10 or under \$15.....	38.77	35.24	68.87	81.99	15.00	35.20	44.45	43.59
	\$15 or under \$20.....	42.73	56.15	4.07	5.55	32.50	25.60	11.11	17.95
	\$20 or under \$25.....	13.22	8.61	.11		12.50	4.80	22.23	5.12
	\$25 or under \$30.....	3.08				7.50	4.80	3.70	2.57
	\$30 or under \$35.....						5.60		2.57
	\$35 or under \$40.....						2.40	3.70	2.57
	\$40 or under \$45.....							3.70	
	\$45 or under \$50.....								
	\$50 or over.....						2.40	3.70	6.12
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
6	Under \$5.....			4.51	3.93	3.62	2.98	22.14	21.98
	\$5 or under \$6.....			3.49	3.21	2.66	2.19	2.29	1.65
	\$6 or under \$7.....			12.60	7.52	3.14	1.19	1.58	3.85
	\$7 or under \$8.....			35.49	13.90	1.21	1.79		1.65
	\$8 or under \$9.....			19.73	39.72	2.41	3.58	6.87	1.10
	\$9 or under \$10.....			19.93	24.00	7.25	8.95	14.50	3.85
	\$10 or under \$15.....	60.73	57.21	4.25	7.72	27.78	30.82	13.74	25.82
	\$15 or under \$20.....	25.80	24.31			20.29	21.47	18.32	17.08
	\$20 or under \$25.....	7.20	10.23			11.35	9.74	6.87	7.69
	\$25 or under \$30.....	2.94	3.11			4.83	3.98	1.53	6.04
	\$30 or under \$35.....	1.32	1.58			4.59	2.78	4.58	2.20
	\$35 or under \$40.....	.27	1.64			3.38	2.98	8.06	3.29
	\$40 or under \$45.....	.71	.38			1.93	1.59		
	\$45 or under \$50.....	.38	.56			1.45	1.19		1.10
	\$50 or over.....	.65	.98			4.11	4.77	4.58	2.75
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

PER CENT OF EMPLOYEES PAID EACH CLASSIFIED RATE OF WAGES PER WEEK BEFORE AND AFTER THE FORMATION OF THE COMBINATION, FOR EACH OF 13 COMBINATIONS—Continued.

Marginal number.	Rate of wages paid per week.	Skilled laborers.		Unskilled laborers.		Clerks.		Others (not including superintendents, foremen, and traveling salesmen).	
		Under uniting companies.	Under combination.	Under uniting companies.	Under combination.	Under uniting companies.	Under combination.	Under uniting companies.	Under combination.
7	Under \$5			54.99	63.06	5.81	4.63	5.44	5.84
	\$5 or under \$6			13.25	11.24	6.26	6.53	3.02	4.32
	\$6 or under \$7			15.20	10.26	7.01	8.43	.91	3.30
	\$7 or under \$8			9.92	9.39	6.26	7.25	12.39	7.87
	\$8 or under \$9	1.69	1.13	5.81	5.31	8.35	8.43	.30	4.82
	\$9 or under \$10	21.42	21.22	.83	.65	8.64	6.41	17.82	21.07
	\$10 or under \$15	64.15	65.08		.09	25.63	23.62	48.64	42.13
	\$15 or under \$20	10.58	10.51			15.65	14.78	9.36	5.33
	\$20 or under \$25	1.22	1.34			9.09	8.55	.91	2.79
	\$25 or under \$30	.61	.49			4.02	3.90	.91	1.52
	\$30 or under \$35	.22	.20			2.39	1.81		.25
	\$35 or under \$40		.03			.89	.95	.30	.25
	\$40 or under \$45	.11					.24		
	\$45 or under \$50						.12		.51
	\$50 or over								
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
8	Under \$5			6.52	2.96	2.20		4.70	
	\$5 or under \$6			1.03	1.50		10.00		1.59
	\$6 or under \$7			15.40	6.61	4.39	6.15	9.39	
	\$7 or under \$8			22.13	8.09	1.10		8.05	4.76
	\$8 or under \$9			16.57	20.23	4.39	1.54	6.04	4.76
	\$9 or under \$10			24.36	24.69	13.19		27.52	44.45
	\$10 or under \$15	50.96	21.61	13.99	35.92	32.97	26.16	22.15	23.61
	\$15 or under \$20	22.52	82.73			30.77	27.69	22.15	17.46
	\$20 or under \$25	15.90	20.61			4.39	6.92		1.59
	\$25 or under \$30	3.97	14.83			3.30			.79
	\$30 or under \$35	2.65	3.02				6.15		
	\$35 or under \$40	1.32	1.85			2.20	2.81		
	\$40 or under \$45	1.05	1.22			1.10	.77		
	\$45 or under \$50	.84	1.64						
	\$50 or over	.77	2.49				12.31		
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
9	Under \$5			3.25	3.71	.69	4.51		
	\$5 or under \$6			8.20	4.68	.69	8.83		
	\$6 or under \$7			23.71	12.99	2.08	1.85		
	\$7 or under \$8			35.24	18.99	12.50	5.18		
	\$8 or under \$9			17.05	39.23	8.34	4.73		
	\$9 or under \$10			12.55	20.40	13.89	4.05	17.91	
	\$10 or under \$15	55.66	49.40			25.70	33.78	37.31	
	\$15 or under \$20	25.47	15.80			18.05	27.48	29.85	
	\$20 or under \$25	8.59	8.30			9.03	8.11	10.45	
	\$25 or under \$30	6.23	5.70			3.47	2.25		
	\$30 or under \$35	1.28	6.47			4.86	.90	2.99	
	\$35 or under \$40	.82	5.15			.69	1.85		
	\$40 or under \$45	.51	4.30				.68		
	\$45 or under \$50	.31	.76				.90	1.49	
	\$50 or over	1.13	4.12				.90		100.00
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
10	Under \$5			3.65					
	\$5 or under \$6			9.74	3.66				
	\$6 or under \$7			6.09	14.64	8.38	.87		
	\$7 or under \$8			42.80	1.22		2.89		
	\$8 or under \$9			26.54	26.04	11.17	8.88		
	\$9 or under \$10			11.18	33.07		2.02		
	\$10 or under \$15	45.50	.78		21.37	63.18	35.55	100.00	100.00
	\$15 or under \$20	11.49	42.15				40.46		
	\$20 or under \$25	5.52	12.24						
	\$25 or under \$30	18.08	1.53			17.32	9.83		
	\$30 or under \$35	12.90	15.36						
	\$35 or under \$40		13.97						
	\$40 or under \$45	11.51							
	\$45 or under \$50		13.97						
	\$50 or over								
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

PER CENT OF EMPLOYEES PAID EACH CLASSIFIED RATE OF WAGES PER WEEK BEFORE AND AFTER THE FORMATION OF THE COMBINATION, FOR EACH OF 13 COMBINATIONS—Concluded.

Marginal number.	Rate of wages paid per week.	Skilled laborers.		Unskilled laborers.		Clerks.		Others (not including superintendents, foremen, and traveling salesmen).	
		Under uniting companies.	Under combination.	Under uniting companies.	Under combination.	Under uniting companies.	Under combination.	Under uniting companies.	Under combination.
11	Under \$5.....	11.34	12.28			2.94	2.56		
	\$5 or under \$6.....	31.28	29.52			35.29	2.56		
	\$6 or under \$7.....	23.24	19.27	100.00		17.65	41.03		
	\$7 or under \$8.....	8.14	8.30		100.00	8.82	12.82		
	\$8 or under \$9.....	6.73	5.38			2.94	15.39		
	\$9 or under \$10.....	6.69	6.56			5.88	5.13		
	\$10 or under \$15.....	12.12	17.79			11.77	15.39		
	\$15 or under \$20.....	.46	.77			11.77	2.56		
	\$20 or under \$25.....		.13			2.94	2.56		
	\$25 or under \$30.....								
	\$30 or under \$35.....								
	\$35 or under \$40.....								
	\$40 or under \$45.....								
	\$45 or under \$50.....								
	\$50 or over.....								
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00		
12	Under \$5.....	17.11	14.88			6.67	5.41		
	\$5 or under \$6.....	15.42	16.96	.86	.77	15.55	8.11		
	\$6 or under \$7.....	24.41	24.48	78.50	68.22	8.89	17.57		
	\$7 or under \$8.....	16.72	16.54	11.97	18.60		5.41		
	\$8 or under \$9.....	7.49	8.25	7.69	6.98	2.22	2.70		
	\$9 or under \$10.....	6.46	7.02	2.56	2.33		12.16		
	\$10 or under \$15.....	8.39	7.41	1.71	1.55	81.11	12.16		
	\$15 or under \$20.....	3.38	3.82	1.71	1.55	22.22	21.62		
	\$20 or under \$25.....	.38	.43			4.45	5.41		
	\$25 or under \$30.....	.02	.02			4.45	2.70		
	\$30 or under \$35.....	.10	.06			2.22	4.06		
	\$35 or under \$40.....	.10	.12				1.35		
	\$40 or under \$45.....								
	\$45 or under \$50.....					2.22	1.35		
	\$50 or over.....	.02	.02					100.00	100.00
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
13	Under \$5.....			1.23	.96	.81			
	\$5 or under \$6.....			.96	.89	1.61	1.47		
	\$6 or under \$7.....			1.55	.89	1.61	3.43		
	\$7 or under \$8.....	.43		21.13	2.06	4.84	4.90		1.45
	\$8 or under \$9.....	4.95	.11	21.40	18.14	8.07	5.88		1.45
	\$9 or under \$10.....	6.97	.64	38.57	17.93	4.84	7.84		2.90
	\$10 or under \$15.....	48.00	47.48	15.16	57.99	31.45	37.75	70.00	52.17
	\$15 or under \$20.....	20.58	29.76		1.14	27.42	21.08	30.00	31.88
	\$20 or under \$25.....	9.06	10.45			8.87	9.32		4.35
	\$25 or under \$30.....	3.86	4.97			3.23	3.92		2.90
	\$30 or under \$35.....	3.25	2.99			2.42	.98		
	\$35 or under \$40.....	.65	1.55			1.61	.98		1.45
	\$40 or under \$45.....	.51	.29			1.61	.98		1.45
	\$45 or under \$50.....	.72	.08			1.61	1.47		
	\$50 or over.....	1.52	1.68						
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The following table presents a summary of the foregoing table, but shows the number of employees of each class as well as the per cent:

NUMBER AND PER CENT OF EMPLOYEES PAID EACH CLASSIFIED RATE OF WAGES PER WEEK BEFORE AND AFTER THE FORMATION OF THE COMBINATIONS, FOR 13 COMBINATIONS.

Rate of wages paid per week.	Skilled laborers.				Unskilled laborers.				Clerks.			
	Under uniting companies.		Under combination.		Under uniting companies.		Under combination.		Under uniting companies.		Under combination.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under \$5.....	1,477	4.39	1,429	3.55	4,902	11.23	6,969	12.84	66	8.15	96	3.03
\$5 or under \$6.....	2,342	6.96	2,252	5.60	2,720	6.23	2,394	4.42	85	4.06	118	3.73
\$6 or under \$7.....	2,351	6.99	2,118	5.27	5,332	12.21	5,195	9.58	106	5.01	149	4.71
\$7 or under \$8.....	1,256	3.74	1,285	3.20	12,638	28.94	5,389	9.94	89	4.25	146	4.61
\$8 or under \$9.....	924	2.75	751	1.87	7,717	17.67	13,477	24.86	147	7.02	204	6.44
\$9 or under \$10.....	1,565	4.65	1,514	3.76	7,310	16.74	11,258	20.77	160	7.64	179	5.65
\$10 or under \$15.....	14,122	41.98	14,344	35.67	2,971	6.80	9,371	17.28	647	30.90	977	30.85
\$15 or under \$20.....	4,839	14.39	8,108	20.16	77	.18	171	.31	380	18.15	713	22.51
\$20 or under \$25.....	1,606	4.78	2,807	6.98	2	(a)			171	8.17	240	7.58
\$25 or under \$30.....	1,245	3.70	1,077	2.68					115	5.49	145	4.58
\$30 or under \$35.....	933	2.77	1,562	3.88					51	2.43	61	1.93
\$35 or under \$40.....	92	.27	1,332	3.31					33	1.58	45	1.42
\$40 or under \$45.....	694	2.06	281	.70					14	.67	22	.69
\$45 or under \$50.....	63	.19	970	2.41					14	.67	22	.69
\$50 or over.....	128	.38	387	.96					17	.81	50	1.58
Total.....	33,637	100.00	40,217	100.00	43,669	100.00	54,214	100.00	2,094	100.00	3,167	100.00

Rate of wages paid per week.	Others (not including superintendents, foremen, and traveling salesmen).				All employees (not including superintendents, foremen, and traveling salesmen).			
	Under uniting companies.		Under combination.		Under uniting companies.		Under combination.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under \$5.....	b55	b4.61	b69	b5.13	c6,500	c8.06	c8,553	c8.64
\$5 or under \$6.....	b13	b1.09	b28	b2.08	c5,160	c6.40	c4,792	c4.84
\$6 or under \$7.....	b22	b1.84	b42	b3.12	c7,810	c9.69	c7,504	c7.58
\$7 or under \$8.....	b56	b4.69	b64	b4.76	c14,039	c17.42	c6,884	c6.96
\$8 or under \$9.....	b20	b1.68	b48	b3.57	c8,808	c10.93	c14,480	c14.64
\$9 or under \$10.....	b137	b11.47	b152	b11.80	c9,172	c11.38	c13,103	c13.24
\$10 or under \$15.....	b633	b53.02	b642	b47.73	c18,373	c22.80	c25,334	c25.61
\$15 or under \$20.....	b173	b14.49	b149	b11.06	c5,469	c6.79	c9,141	c9.24
\$20 or under \$25.....	b25	b2.09	b40	b2.98	c1,804	c2.24	c3,067	c3.12
\$25 or under \$30.....	b8	b.67	b27	b2.01	c1,368	c1.70	c1,249	c1.26
\$30 or under \$35.....	b10	b.84	b11	b.82	c994	c1.23	c1,634	c1.65
\$35 or under \$40.....	b6	b.50	b10	b.74	c131	c.16	c1,387	c1.40
\$40 or under \$45.....	b1	b.08	b3	b.22	c709	c.88	c306	c.31
\$45 or under \$50.....	b4	b.33	b5	b.37	c81	c.10	c997	c1.01
\$50 or over.....	b31	b2.60	b55	b4.09	c176	c.22	c492	c.50
Total.....	b1,191	100.00	b1,345	100.00	c80,594	100.00	c98,943	100.00

a Percentage, 0.0046.

b Not including one combination not reporting.

c Not including "other" employees in one combination.

It will be noted that among skilled laborers the increase in the numbers of different classes comes chiefly in those receiving from \$35 to \$40 and \$45 to \$50 a week, so far as the higher-priced ones are concerned. A notable increase is also shown for those receiving from \$15 to \$20 and \$20 to \$25 a week. There was, on the other hand, a tendency to lessen the number of the more poorly paid men.

Among unskilled laborers both the number and per cent of those receiving less than \$5 a week were increased. There was then a decided decrease until the class receiving from \$8 to \$9 was reached. There was a very noteworthy increase in both the number and per cent of employees receiving from \$8 to \$9 per week, in the higher class receiving from \$9 to \$10 per week, and in the still higher one receiving from \$10 to \$15. Among clerks the rates of wages were considerably more stable than in the case of the two preceding classes. The per cent of clerks employed in each class varied but little except in the classes receiving from \$9 to \$10 and from \$15 to \$20 per week. In the case of the employees unclassified, but excluding superintendents, foremen, and traveling salesmen, there was something of an increase in the per cent employed in the case of the lower-paid wage earners as well as in the case of those more highly paid, but throughout those of medium grade there was, generally speaking, a decrease. On the whole, taking the summary of all the employees, but excluding superintendents, foremen, and traveling salesmen, there was under combination a slight increase of wage earners of the lowest class, and thereafter in the classes whose wages ran from \$8 to \$25 per week a decided increase in both the number and per cent of men employed, although there was also a considerable increase in some of the classes receiving the higher wages. In those cases, however, the number of persons involved was so small that the general effect upon the wage-earning class as a whole could be but slight, even assuming that the figures for these combinations would hold good for industrial combinations in general.

It would, of course, be too much to say that these results show the general effect of combinations on wages. The returns are not numerous enough. Besides that, many of the combinations were formed at the beginning of a period of general industrial prosperity, so that an increase in wages was perhaps to be expected. The tables do show, so far as the figures go, that these combinations have not decreased wages among these classes of wage earners. Later tables show further points. Like tendencies appear also in the tables regarding large private companies (pp. 690, 691).

In addition to the classes mentioned in the foregoing tables, there is shown in the next table the average annual wages of employees of various classes before and after the formation of combinations in 14 combinations, together with the per cent of increase or decrease. This table shows, in addition to the classes mentioned in the previous tables (skilled laborers, unskilled laborers, clerks, and others), superintendents and foremen and traveling salesmen.

AVERAGE ANNUAL WAGES OF EMPLOYEES OF VARIOUS CLASSES BEFORE AND AFTER THE FORMATION OF THE COMBINATIONS AND THE PER CENT OF INCREASE OR DECREASE, FOR 14 COMBINATIONS.

Marginal number.	Superintendents and foremen.			Traveling salesmen.			Skilled laborers.			Unskilled laborers.		
	Under uniting companies.	Under combination.	Per cent of increase or decrease.	Under uniting companies.	Under combination.	Per cent of increase or decrease.	Under uniting companies.	Under combination.	Per cent of increase or decrease.	Under uniting companies.	Under combination.	Per cent of increase or decrease.
1....	\$1,471	\$1,505	+ 2.31	\$1,144	\$1,150	+ 0.52	\$609	\$658	+ 7.22	\$428	\$433	+ 1.17
2....	1,232	1,301	+ 5.60	1,742	1,631	- 6.37	661	627	- 5.14	435	413	- 5.06
3....	1,244	1,515	+21.78	1,333	2,000	+ 50.04	(a)	(a)	(a)	(a)	(a)	(a)
4....	1,838	1,958	+ 6.82	2,849	2,751	- 3.44	(a)	(a)	(a)	(a)	(a)	(a)
5....	895	927	+ 3.58	(b)	1,262	(c)	623	713	+14.45	350	402	+14.86
6....	2,308	2,273	- 1.52	(b)	(b)	(b)	881	876	- .57	471	496	+ 5.31
7....	1,211	990	-18.25	(b)	1,721	(c)	703	766	+ 8.96	497	534	+ 7.44
8....	1,245	1,160	- 6.83	1,932	2,296	+ 18.84	586	601	+ 2.56	381	405	+ 6.30
9....	1,145	1,094	- 4.45	1,079	1,108	+ 2.69	540	547	+ 1.30	214	217	+ 1.40
10....	d 657	d 783	+19.18	d 631	d 1,771	+180.67	d 439	d 524	+19.36	d 180	d 238	+29.44
11....	d 609	d 721	+18.39	d 825	d 2,554	+209.58	d 355	d 409	+15.21	d 170	d 183	+ 7.65
12....	1,606	1,606	.00	5,000	(b)	(c)	656	821	+25.15	149	275	+84.56
13....	1,527	1,599	+ 4.72	1,500	1,500	.00	d 159	d 162	+ 1.89	d 203	d 203	.00
14....	1,222	1,258	- 2.96	2,325	3,000	+ 29.08	647	887	+29.37	404	517	+27.97

Marginal number.	Clerks.			Others.			All employees.		
	Under uniting companies.	Under combination.	Per cent of increase or decrease.	Under uniting companies.	Under combination.	Per cent of increase or decrease.	Under uniting companies.	Under combination.	Per cent of increase or decrease.
1....	\$679	\$672	- 1.03	\$4,820	\$3,704	- 14.26	\$767	\$780	+ 1.69
2....	827	759	- 8.22	5,487	4,618	- 15.84	674	649	- 3.71
3....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
4....	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
5....	640	817	+27.66	563	603	+ 7.10	472	563	+19.28
6....	1,020	1,020	.00	900	900	.00	779	776	- .39
7....	744	746	+ .27	899	827	- 8.01	555	589	+ 6.13
8....	894	1,107	+23.83	674	653	- 3.12	468	504	+ 7.69
9....	673	672	- .15	655	584	- 10.84	438	418	- 4.57
10....	d 389	d 392	+ .77	d 287	d 325	+ 13.24	d 280	d 342	+22.14
11....	d 384	d 350	- 8.85	d 353	d 1,130	+220.11	d 254	d 288	+13.39
12....	732	732	.00	569	599	.00	360	487	+35.28
13....	d 369	d 333	- 9.76	d 2,600	d 4,055	+ 55.96	d 176	d 181	+ 2.84
14....	763	696	- 8.91	620	644	+ 3.87	546	668	+22.34

a Not reported.

b None employed.

c See note b.

d Average wages for 6 months.

Out of the 14 establishments giving returns, the table shows that in 9 the average wages of superintendents and foremen increased; the wages decreased in 4, while in 1 there had been no change. Out of these 14 companies 10 were formed in the years 1898 and 1899, so that the comparison of conditions before and after is a very direct one. In one case, in which the per cent of increase was very large, the combination was formed in the 60's, so that it might be expected that there would be a large increase entirely aside from the influence of combination. In the cases in which there was a decrease, one combination was formed in 1897, two in 1898, and the fourth in 1899. Testimony offered before the Industrial Commission and statements made by managers of the combinations elsewhere go to show that, in a good many cases at least, high-priced men, who have been the heads of independent establishments, may be dispensed with, and their places taken by men of less experience, working under the supervision of one or two thoroughly trained and skilled men.

The evidence afforded by this table, however, contradicts rather than supports such a conclusion. The table on page 687 seems to support that conclusion, but it should be added in explanation that two combinations showing large percentages of gain unfortunately reported wages for six months only, and could not be included in the table on page 687.

It has been thought that, owing to the fact that there was less competition, men who were less skilled as salesmen might do effectively the work of the combination when they could not do that of independent establishments. The table shows that in 7 cases out of the 14, nevertheless, the average annual wages of traveling salesmen increased. In 2 there was a decrease; in 1 the wages remained the same. In 2 cases no traveling salesmen had been employed by the companies entering into the combination, whereas after the combination was made such men were put to work. In 1 case in which traveling salesmen had been employed by the separate companies their services were entirely dispensed with under the combination. One reported none employed before or after.

The average annual wages of skilled laborers has increased in 10 cases and decreased in 2, the average amount of the increase being considerably greater than that of the decrease. There was also an increase in the average annual wages of unskilled laborers in 10 cases, a decrease in only 1, while 1 remained the same. Taking the employees as a whole, the results show that out of 12 cases reporting there had been an increase of wages in 9 cases and a decrease in 3.

One of the combinations which shows a slight increase in the average annual wages of skilled laborers reports that "the old employees are to-day receiving, on the whole, higher wages than they were under the uniting companies, but that there has been a large increase in the number of skilled employees, and the new employees taken on were paid lower wages at first because, while nominally skilled, they are not so efficient as the old and trained men. This tends to reduce the average for the class."

The same combination is now putting out its products in a form which requires a great many low-paid employees for packing, wrapping, and labeling. This tends to reduce the average wages of unskilled laborers.

The assumption from these returns that the effect of forming the combinations has been to increase the wages of practically all classes of employees in the various classes of industry would not be warranted. It should be recalled that a majority of these combinations were formed during the last two years, and that within this time in very many lines of business, both those that have been organized into combinations and those which have remained under the most active competitive system, wages have very generally been increased. This

has been made easily possible by the fact that, owing to the prosperous condition of business in general, prices have also increased, so that with the increase in wages there has also probably been an increase in profits. They show in favor of the combinations, but one is not warranted in drawing sweeping conclusions.

Instead of the average annual wages, the next table shows the per cent of increase or decrease in the total annual wages, together with the per cent of increase or decrease in the number of employees of the various classes before named:

PER CENT OF INCREASE OR DECREASE IN NUMBER AND TOTAL ANNUAL WAGES OF EMPLOYEES OF VARIOUS CLASSES SINCE THE FORMATION OF THE COMBINATIONS, FOR 16 COMBINATIONS.

Marginal number.	Superintendents and foremen.		Traveling salesmen.		Skilled laborers.		Unskilled laborers.	
	Number.	Wages.	Number.	Wages.	Number.	Wages.	Number.	Wages.
1....	- 6.82	- 4.68	- 2.60	- 2.16	+ 8.39	+10.81	- 16.94	- 15.99
2....	+ 19.30	+ 25.97	+ 18.18	+ 10.68	+ 2.85	- 2.33	+ 2.09	- 3.04
3....	- 26.67	- 10.71	- 58.33	- 37.50	(a)	(a)	(a)	(a)
4....	.00	+ 6.82	+ 5.71	+ 2.11	(a)	(a)	(a)	(a)
5....	+ 43.18	+ 48.23	(b)	(c)	+52.52	+74.45	+ 21.06	+ 39.14
6....	- 15.38	- 16.67	(d)	(d)	- 1.52	- 2.09	- .50	+ 4.87
7....	+ 20.69	- 1.33	(e)	(f)	- 4.81	+ 4.12	+ 16.61	+ 25.09
8....	+237.50	+283.33	+550.00	+508.57	+76.09	+75.06	+151.07	+ 42.86
9....	+ 18.75	+ 10.58	+ 11.76	+ 32.83	+38.76	+42.35	+ 9.48	+ 16.44
0....	+ 4.47	- .18	+ 9.31	+ 12.25	+25.19	+26.73	+ 34.24	+ 36.34
11....	+ 20.27	+ 43.33	- 50.00	+ 40.25	+38.74	+65.58	+ 40.14	+ 81.72
12....	+ 24.24	+ 46.95	- 18.75	+151.52	+15.74	+33.50	+ 15.93	+ 24.54
13....	+ 14.29	+ 14.30	(g)	(h)	+15.40	+44.59	+ 16.54	+115.11
14....	(a)	+ 9.63	(a)	(a)	- 6.53	- .18	- 21.81	- 15.76
15....	- 13.43	- 9.35	.00	.00	+ 2.20	+ 4.05	+ 10.26	+ 10.59
16....	+ 23.01	+ 26.64	- 75.00	- 67.74	+14.49	+48.08	+ 51.02	+ 93.37

Marginal number.	Clerks.		Others.		All employees.	
	Number.	Wages.	Number.	Wages.	Number.	Wages.
1....	- 1.64	- 2.63	- 8.00	- 21.13	- 0.22	+ 1.60
2....	+ 34.68	+ 23.67	.00	- 15.84	+ 6.01	+ 2.08
3....	(a)	(a)	(a)	(a)	(a)	(a)
4....	(a)	(a)	(a)	(a)	(a)	(a)
5....	+126.15	+188.85	+ 68.97	+ 81.02	+ 36.47	+ 62.89
6....	- 8.96	- 8.96	- 13.33	- 13.33	- 3.45	- 3.88
7....	+171.43	+172.12	+ 78.26	+ 63.95	+ 18.70	+ 26.04
8....	+225.00	+130.95	(i)	(j)	+142.94	+114.32
9....	+ 27.70	+ 58.09	+ 21.67	+ 17.95	+ 18.47	+ 27.43
10....	+ 22.03	+ 21.81	+ 29.27	+ 15.35	+ 28.75	+ 22.88
11....	+ 51.25	+ 52.31	- 15.56	- 4.53	+ 37.43	+ 68.07
12....	+135.58	+114.63	- 61.29	+ 23.99	+ 17.35	+ 32.96
13....	+ 93.30	+ 93.30	+ 8.33	+ 8.33	+ 16.74	+ 57.96
14....	+ 14.71	+ 2.73	(d)	(d)	(a)	(a)
15....	+ 64.44	+ 48.31	- 8.33	+ 42.95	+ 2.71	+ 5.66
16....	+ 10.42	+ .66	+142.86	+152.17	+ 32.54	+ 62.13

a Not reported.

b None employed in uniting companies; 20 in combination.

c Nothing paid in uniting companies; \$25,248 in combination.

d None employed.

e None employed in uniting companies; 3 in combination.

f Nothing paid in uniting companies; \$5,163 in combination.

g Thirty-two employed in uniting companies; none in combination.

h \$160,000 paid in uniting companies; nothing in combination.

i None employed in uniting companies; 41 in combination.

j Nothing paid in uniting companies; \$96,377 in combination.

This table shows, too, that in a great majority of cases there has been an increase all along the line, both in the number of employees

and in the total wages. Without entering into the details regarding the various classes of labor, it will perhaps be worth noting that, taking all of the employees together, there have been but 2 cases of a decrease in the number of employees out of 13 reporting, and but 1 case, out of the same number, of a decrease in the total annual wages. This table seems also to show that the percentage of increase in wages has been more than that of the increase in the number of men, thus confirming again the statements as to the general average increase in wages.

The table following shows the average annual wages paid before and after the formation of the combinations and the per cent of increase or decrease in average annual wages, as well as the per cent of increase or decrease in the number of employees and in the total amount of wages paid, by classes of employees:

AVERAGE ANNUAL WAGES PAID BEFORE AND AFTER THE FORMATION OF THE COMBINATIONS AND PER CENT OF INCREASE OR DECREASE IN AVERAGE ANNUAL WAGES, NUMBER OF EMPLOYEES, AND TOTAL ANNUAL WAGES.

Class of employees.	Combinations reporting.	Average annual wages paid.			Per cent of increase or decrease in the number of employees.	Per cent of increase or decrease in total amount of wages paid.
		Under uniting companies.	Under combination.	Per cent of increase or decrease.		
Superintendents and foremen	12	\$1,262	\$1,227	- 2.77	+11.79	+ 8.72
Traveling salesmen	12	1,346	1,246	- 7.43	+ 4.17	- 3.57
Skilled laborers	9	620	705	+13.71	+23.34	+40.13
Unskilled laborers	9	294	351	+19.39	+20.06	+43.38
Clerks	9	757	796	+ 5.42	+36.45	+43.96
Other employees	9	754	662	-12.20	+29.06	+13.42
All employees	9	460	518	+12.61	+21.56	+36.68

For the combinations reporting this table shows an increase in the average annual wages paid to skilled laborers, to unskilled laborers, and to clerks, and a decrease in the average annual wages paid to superintendents and foremen, traveling salesmen, and the unclassified employees. Taking all of the employees together, the percentage of increase of average annual wages has been 12.61. The greatest increase has appeared in the case of the unskilled laborers; the greatest percentage of decrease in the unclassified employees, while traveling salesmen have lost much more in average annual wages than have superintendents and foremen, the figures being respectively 7.43 and 2.77. In all classes of employees, taking all of the establishments which have reported, there has been a decided increase in the number of employees; and in all cases, with the exception of the traveling salesmen, there has been also an increase in the total amount of wages paid. The traveling salesmen have received less by 3.57 per cent.

One can not make, however, a fair judgment regarding the effect of the combinations upon the employees, unless one takes into consideration also the relative efficiency of the work of the men under

the two systems, comparing the amount of work performed and the annual wages paid. The next table attempts to throw some light upon this question. The preferable way to determine the efficiency of the employees would be to secure the number of units of output in each specific plant to compare with the number of employees. That it has not been possible to do, but it has been possible in a few cases to secure the total amount of gross sales made by the uniting companies for the year previous to the combination and the total amount during the year 1899. The reports secured for the number of employees and annual wages did not cover exactly the same periods of time, being in the earlier period for some fiscal year just previous to the formation of the combination and in the more recent period for some fiscal year including the time of the visit of the agent of the Department of Labor. These facts relating to gross sales, employees, and annual wages are, however, brought together in the table following for whatever value they may have in a study of the question. The table gives the total amount of gross sales, the total number of employees, and the total annual wages of all employees for some year previous to the formation of the combinations and under combination, with the per cent of increase or decrease. Of the 8 combinations reporting, 4 were organized in the earlier part of the year 1899, 1 was organized in 1898, 1 in 1895, 1 in 1891, and 1 in the 60's. Of course it is to be expected that in the case of those formed earlier, the percentage of increase of sales during the year 1899 as compared with that before the organization should be very great. It is also to be expected that with this increase in output should come an increase in the total number of employees and in the annual wages paid them.

TOTAL AMOUNT OF GROSS SALES, NUMBER OF EMPLOYEES, AND TOTAL ANNUAL WAGES BEFORE AND AFTER COMBINATION AND PER CENT OF INCREASE OR DECREASE IN EACH, FOR 8 COMBINATIONS.

Marginal number.	Total amount of gross sales.			Total number of employees.			Total annual wages of all employees.		
	By uniting companies for year previous to combining.	By combination for year 1899.	Per cent of increase or decrease.	Of uniting companies before combining.	Of combination.	Per cent of increase or decrease.	Of uniting companies before combining.	Of combination.	Per cent of increase or decrease.
1.....	\$4,226,366	\$5,280,068	+ 24.46	1,898	1,890	- 0.22	\$1,067,812	\$1,084,847	+ 1.60
2.....	895,000	1,890,000	+ 54.19	(a)	(a)	(a)	(a)	(a)	(a)
3.....	2,040,599	2,291,259	+ 12.28	(a)	(a)	(a)	(a)	(a)	(a)
4.....	4,157,815	6,219,000	+ 49.57	8,189	4,352	+ 36.47	1,504,611	2,450,870	+ 62.89
5.....	4,500,000	11,000,000	+144.44	822	1,997	+142.94	408,990	865,815	+114.32
6.....	28,500,000	35,652,000	+ 25.09	10,860	13,962	+ 28.76	4,753,420	5,898,834	+ 22.83
7.....	7,864,699	8,582,234	+ 9.12	5,010	5,146	+ 2.71	3,883,089	3,932,960	+ 5.66
8.....	d12,810,714	d25,865,884	d+ 98.01	5,577	7,392	+ 32.54	3,046,530	4,939,063	+ 62.13
Total	e64,995,193	e95,750,465	e+ 47.32	f26,861	f34,259	f+ 27.59	g11,659,202	g16,112,409	g+ 38.19

a Not reported.

b Estimated.

c Wages for 6 months only.

d Output of about two-thirds of the plants in the combination.

e One combination reports output of about two-thirds of its plants.

f Six combinations reporting.

g Six combinations reporting. One combination reports wages for 6 months only.

While the relation of the number of employees to gross sales can not be taken as a sound economic basis for calculating the efficiency of labor, it may be used as indicating the economic results of management or method or the activity of the whole force. It is in this light the analysis as to efficiency must be considered.

While the number of combinations reporting is so small and the character of the reports such that one would not be justified in reaching positive conclusions, it is nevertheless to be noted that so far as these returns go they serve to support the contention of those who claim that combinations of capital increase the efficiency of the workingmen. On the other hand, one needs to guard against laying much stress on that, inasmuch as prices during the year 1899 in the industries reported on have very generally increased, the increase in some having been very marked indeed. So, also, as regards the increase in wages, it is well known that in many lines wages have been increased, but it is as yet too soon to draw a positive conclusion to the effect that combinations will, on the whole, increase wages. Not until after they have passed through a period of depression as well as one of prosperity will there be sufficient data so that one can reach positive conclusions regarding their effects upon prices and wages.

In order that wages paid by the combinations may be compared with those paid by large private companies, several tables have been prepared dealing with the wages paid by three large private companies engaged in business similar to some of the combinations covered by the previous tables. These private companies, perhaps, it should be stated, employ as many workmen and carry on business on quite as large a scale as some of the combinations included in this report. The first of the tables gives the per cent of each class of employees receiving each classified rate of wages per week in 1897 and 1899, each establishment being shown separately. This is followed by a table showing for the three companies combined the number of employees in each class and at each classified rate of pay. A third table shows the average annual wages paid, with the per cent of increase or decrease in average wages, in number of employees, and in total annual wages.

PER CENT OF EMPLOYEES IN 3 PRIVATE COMPANIES PAID EACH CLASSIFIED RATE OF WAGES PER WEEK, 1897 AND 1899.

Marginal number.	Rate of wages paid per week.	Skilled laborers.		Unskilled laborers.		Clerks.		Others (not including superintendents, foremen, and traveling salesmen).	
		1897.	1899.	1897.	1899.	1897.	1899.	1897.	1899.
1	Under \$5.....								
	\$5 or under \$6.....								
	\$6 or under \$7.....			23.45	16.14				
	\$7 or under \$8.....			8.16	8.56				
	\$8 or under \$9.....			73.99	80.28				
	\$9 or under \$10.....	20.96	22.98						
	\$10 or under \$15.....	46.88	45.48						
	\$15 or under \$20.....	21.53	22.06						
	\$20 or under \$25.....	5.15	4.75						
	\$25 or under \$30.....	2.86	1.69						
	\$30 or under \$35.....	2.04	2.04						
	\$35 or under \$40.....	.43	.44						
	\$40 or under \$45.....	.14	.13						
	\$45 or under \$50.....	.29	.24						
	\$50 or over.....	.20	.19						
	Total.....	100.00	100.00	100.00	100.00				
2	Under \$5.....			1.99	1.98				
	\$5 or under \$6.....			.99	.49				
	\$6 or under \$7.....			4.99	.99				
	\$7 or under \$8.....			5.99	6.98				
	\$8 or under \$9.....			25.98	2.97				
	\$9 or under \$10.....	10.33	8.92	50.08	1.92				
	\$10 or under \$15.....	69.74	59.79	7.99	81.81		32.63		
	\$15 or under \$20.....	19.98	36.29	1.99	2.91	100.00			
	\$20 or under \$25.....						67.37		
	\$25 or under \$30.....								
	\$30 or under \$35.....								
	\$35 or under \$40.....								
	\$40 or under \$45.....								
	\$45 or under \$50.....								
	\$50 or over.....								
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00		
3	Under \$5.....			5.68	5.21	1.79	0.88	1.72	20.27
	\$5 or under \$6.....			1.97	.88	1.79	8.51	5.18	
	\$6 or under \$7.....			8.53	8.06	1.79	2.63	8.45	1.86
	\$7 or under \$8.....			58.71	2.78	10.71	.88		6.76
	\$8 or under \$9.....			14.54	56.66	17.86	7.02	17.24	14.87
	\$9 or under \$10.....			15.67	81.39	3.57	8.77	1.72	14.87
	\$10 or under \$15.....	38.91	41.22			28.67	37.72	36.21	13.51
	\$15 or under \$20.....	38.85	30.57			16.07	19.30	22.41	8.11
	\$20 or under \$25.....	10.36	9.79			5.85	7.90	8.45	2.70
	\$25 or under \$30.....	5.21	6.91			3.57	5.26	5.18	8.11
	\$30 or under \$35.....	2.54	5.37			1.79		1.72	4.05
	\$35 or under \$40.....	1.06	1.25			5.85	2.63	1.72	2.70
	\$40 or under \$45.....	1.46	2.85						1.86
	\$45 or under \$50.....	.32	1.01				1.75		
	\$50 or over.....	1.27	1.53			1.79	1.75		1.86
	Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

NUMBER OF EMPLOYEES IN 3 PRIVATE COMPANIES PAID EACH CLASSIFIED RATE OF WAGES PER WEEK, 1897 AND 1899.

Rate of wages paid per week.	Skilled laborers.		Unskilled laborers.		Clerks.		Others (not including superintendents, foremen, and traveling salesmen).		All employees (not including superintendents, foremen, and traveling salesmen).	
	1897.	1899.	1897.	1899.	1897.	1899.	1897.	1899.	1897.	1899.
Under \$5.....			275	375	1	1	1	15	277	391
\$5 or under \$6.....			116	78	1	4	3	1	120	82
\$6 or under \$7.....			771	498	1	3	2	1	774	497
\$7 or under \$8.....			1,961	798	6	1	1	5	1,967	804
\$8 or under \$9.....			3,172	3,829	10	8	10	11	3,192	3,848
\$9 or under \$10.....	1,950	3,056	3,641	1,350	2	10	1	11	5,594	4,427
\$10 or under \$15.....	5,097	7,106	515	7,442	16	74	21	10	5,649	14,682
\$15 or under \$20.....	2,638	3,696	128	265	77	22	13	6	2,856	3,968
\$20 or under \$25.....	686	832			3	73	2	2	640	907
\$25 or under \$30.....	236	368			2	6	3	6	308	380
\$30 or under \$35.....	227	382			1		1	3	229	385
\$35 or under \$40.....	56	84			3	3	1	2	60	89
\$40 or under \$45.....	36	66						1	36	67
\$45 or under \$50.....	32	53				2			32	56
\$50 or over.....	38	57			1	2		1	39	60
Total.....	11,007	15,609	10,599	14,630	124	209	58	74	21,788	30,612

AVERAGE ANNUAL WAGES PAID BY 3 PRIVATE COMPANIES IN 1897 AND 1899, AND THE PER CENT OF INCREASE OR DECREASE IN AVERAGE ANNUAL WAGES, NUMBER OF EMPLOYEES, AND TOTAL ANNUAL WAGES.

Class of employees.	Companies reporting.	Average annual wages.			Per cent of increase or decrease in number of employees.	Per cent of increase or decrease in total annual wages.
		1897.	1899.	Per cent of increase or decrease.		
Superintendents and foremen.....	1	\$1,069	\$1,010	- 5.52	+33.33	+26.01
Traveling salesmen.....	1	(a)	(a)	(a)	(a)	(a)
Skilled laborers.....	3	690	740	+ 7.25	+41.87	+52.10
Unskilled laborers.....	3	489	572	+16.97	+41.06	+65.11
Clerks.....	2	681	727	+ 6.76	+80.61	+92.85
Other employees.....	1	788	735	- 6.73	+22.64	+14.40
All employees.....	1	586	689	+17.58	+49.33	+75.60

a None employed.

The latter table summarizes the facts for the three companies combined, so far as reports were obtained. The average annual wages in 1897 and in 1899 are shown for each class of employees and the per cent of increase or decrease in the latter year over the former. In additional columns are shown, first, the per cent of increase in 1899 over 1897 in the number of employees, and, second, in the total annual wages.

It will be noted upon an examination of this table that the percentage of increase in the average annual wages of all employees taken together in the one company reporting as to all employees was 17.58. This company employed no traveling salesmen. If one were to remove that element from the combinations and give the per cent of increase of average wages not including traveling salesmen, it would make it 13.90. The average annual wages of superintendents and foremen decreased 5.52 per cent in the case of the private company and 2.77 per cent under the combinations. In the private

company the greatest percentage of decrease was likewise among the unclassified employees, being 6.73 per cent to 12.20 among the combinations. The unskilled laborers, on the other hand, had their wages considerably increased under the combinations, receiving an increase of 19.39 per cent, while under the three companies operating independently it was only 16.97 per cent. The skilled laborers under the combinations received an increase of 13.71 per cent, the increase under the private companies being only 7.25 per cent. It should be noted, however, that these increases in the private companies were between the years 1897 and 1899. The increases in the case of the combinations are comparisons between any one year before the combination was made and the year 1899. In a few cases this year was considerably earlier than 1897, so that the comparison can not be directly made. The only conclusion that can fairly be reached under the circumstances is that the combinations on the whole show the same tendency as the large private companies, and that so far as the figures go one can not say that they have treated the laborers any less generously.

The two short tables which follow give the average daily compensation of all railway employees in the United States for the years ending June 30, 1892 to 1899. In the first table the figures are absolute and in the second relative, the wages for 1892 being taken as the basis, or 100.

**AVERAGE DAILY COMPENSATION OF ALL RAILWAY EMPLOYEES IN THE UNITED STATES
FOR THE YEARS ENDING JUNE 30, 1892 TO 1899.**

[The data contained in this table for the years 1892 to 1898 are from the reports of the Interstate Commerce Commission on the statistics of railways in the United States. Those for 1899 were furnished to the Department through the courtesy of the statistician from advance sheets of his annual report for 1899.]

Occupations.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
General officers	(a)	(a)	\$9.71	\$9.01	\$9.19	\$9.54	\$9.73	\$10.03
Other officers	(a)	(a)	5.75	5.85	5.96	5.12	5.21	5.18
Average for general and other officers	\$7.62	\$7.84	8.50	7.81	7.91	7.32	7.45	7.47
General office clerks	2.20	2.23	2.24	2.19	2.21	2.18	2.25	2.20
Station agents	1.81	1.83	1.75	1.74	1.73	1.73	1.73	1.74
Other station men	1.68	1.65	1.63	1.62	1.62	1.62	1.61	1.60
Enginemen	3.68	3.66	3.61	3.65	3.65	3.65	3.72	3.72
Firemen	2.07	2.04	2.03	2.05	2.06	2.05	2.09	2.10
Conductors	3.07	3.08	3.04	3.04	3.05	3.07	3.13	3.13
Other train men	1.89	1.91	1.89	1.90	1.90	1.90	1.95	1.94
Machinists	2.29	2.33	2.21	2.22	2.26	2.23	2.28	2.29
Carpenters	2.06	2.11	2.02	2.03	2.03	2.01	2.02	2.03
Other shopmen	1.71	1.75	1.69	1.70	1.69	1.71	1.70	1.72
Section foremen	1.76	1.75	1.71	1.70	1.70	1.70	1.69	1.68
Other track men	1.22	1.22	1.18	1.17	1.17	1.16	1.16	1.18
Switchmen, flagmen, and watchmen	1.78	1.80	1.75	1.75	1.74	1.72	1.74	1.77
Telegraph operators and dispatchers	1.93	1.97	1.93	1.98	1.93	1.90	1.92	1.93
Employees (account floating equipment)	2.07	1.96	1.97	1.91	1.94	1.86	1.89	1.89
All other employees (including laborers)	1.67	1.70	1.65	1.65	1.65	1.64	1.67	1.68

a Not reported.

RELATIVE AVERAGE DAILY COMPENSATION OF ALL RAILWAY EMPLOYEES IN THE UNITED STATES FOR THE YEARS ENDING JUNE 30, 1892 TO 1899.

Occupations.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
General officers	100.0	102.9	111.5	102.5	103.8	96.1	97.8	98.0
Other officers	100.0	101.4	106.4	99.5	100.5	99.1	102.3	100.0
General office clerks	100.0	101.1	96.7	96.1	95.6	95.6	95.6	96.1
Station agents	100.0	98.2	97.0	96.4	96.4	96.4	95.8	95.2
Other station men	100.0	99.5	98.1	99.2	99.2	99.2	101.1	101.1
Enginemen	100.0	98.6	98.1	99.0	99.5	99.0	101.0	101.4
Firemen	100.0	100.3	99.0	99.0	99.3	100.0	102.0	102.0
Conductors	100.0	101.1	100.0	100.5	100.5	100.5	103.2	102.6
Other train men	100.0	101.7	96.5	96.9	98.7	97.4	99.6	100.0
Machinists	100.0	101.4	97.1	97.6	97.6	96.6	97.1	97.6
Carpenters	100.0	102.3	98.8	99.4	98.8	100.0	99.4	100.6
Other shopmen	100.0	99.4	97.2	96.6	96.6	96.6	96.0	95.5
Section foremen	100.0	100.0	96.7	95.9	95.9	95.1	95.1	96.7
Other track men	100.0	101.1	98.3	98.3	97.8	96.6	97.8	99.4
Switchmen, flagmen, and watchmen	100.0	102.1	100.0	102.6	100.0	98.4	99.5	100.0
Telegraph operators and dispatchers	100.0							
Employees (account floating equip- ment)	100.0	94.7	95.2	92.3	93.7	89.9	91.3	91.3
All other employees (including la- borers)	100.0	101.8	98.8	98.8	98.8	98.2	100.0	100.6

From this latter table it appears that the tendency of railway wages in the last two years has been upward and that in a majority of the occupation classes the wages of 1899 had either reached or passed the former level of 1892. This includes such great operating occupations as enginemen, firemen, conductors, other train men, and telegraph operators and dispatchers. Other occupations containing very large numbers are still considerably below the level of 1892. Taking all the employees together, it is probable that the average is still somewhat below that level.

If one compares the wages shown for the combinations and the three private companies with the average daily compensation from 1892 to 1899 of railway employees in the United States, as given above, it will appear that the increase in average annual wages has been decidedly greater among both these private manufacturing companies and the combinations; so, likewise, if one takes the rates of wages shown in Table I, involving occupations of various kinds in the building trades and in various manufacturing industries in different sections of the United States from the first year for which they were obtainable up to April, 1900. As no summary of this great mass of wage data in Table I has been made no exact comparison can be drawn between wages in general as there shown and as given in the previous tables for the combinations and the large private manufacturing corporations. But it would appear that the per cent of increase shown for the combinations has not been exceeded in wages in general. A careful examination of the details of Table I would seem to show that wages in general have reached and in some cases passed the former high level of wages of 1892.

The following statement, showing wages of farm laborers in various years from 1866 to 1899, will permit comparison to be made also with that class of labor:

AVERAGE WAGES OF FARM LABORERS, 1866 TO 1899.

[The facts contained in this table were furnished to the Department by the statistician of the Department of Agriculture. The wages for 1866, 1869, and 1875, except for Oregon, are in currency.]

States.	Wages per day in harvest without board.													
	1866.	1869.	1875.	1879.	1882.	1885.	1888.	1890.	1892.	1893.	1894.	1895.	1898.	1899.
Vermont.....	\$2.32	\$2.46	\$2.28	\$1.29	\$1.75	\$1.68	\$1.65	\$1.68	\$1.70	\$1.90	\$1.69	\$1.61	\$1.68	\$1.74
Pennsylvania.....	2.32	2.23	2.01	1.33	1.73	1.65	1.51	1.55	1.57	1.49	1.38	1.42	1.44	1.51
N. Carolina ..	1.53	1.37	1.17	.99	1.20	1.15	.96	1.00	1.04	.95	.90	.98	.93	.94
Texas.....	1.65	1.56	1.52	1.30	1.39	1.32	1.23	1.20	1.10	1.11	1.03	1.04	1.14	1.16
Iowa.....	2.28	2.85	2.57	1.66	2.25	2.00	1.81	1.71	1.75	1.64	1.46	1.47	1.50	1.75
Oregon.....	2.40		2.11	2.02	1.92	1.95	1.94	1.90	2.00	1.79	1.51	1.37	1.67	1.82

States.	Wages per day in harvest with board.													
	1866.	1869.	1875.	1879.	1882.	1885.	1888.	1890.	1892.	1893.	1894.	1895.	1898.	1899.
Vermont.....	\$1.85	\$2.00	\$1.85	\$0.97	\$1.35	\$1.30	\$1.35	\$1.37	\$1.33	\$1.60	\$1.39	\$1.26	\$1.36	\$1.41
Pennsylvania.....	1.80	1.73	1.51	.99	1.30	1.20	1.13	1.18	1.20	1.19	1.08	1.14	1.13	1.20
N. Carolina ..	1.17	1.04	1.00	.76	.85	.82	.75	.80	.82	.80	.75	.74	.78	.79
Texas.....	1.32	1.26	2.20	.94	1.08	1.04	.96	.93	.90	.93	.86	.83	.92	.98
Iowa.....	1.88	2.24	2.10	1.57	1.81	1.61	1.46	1.50	1.40	1.33	1.16	1.19	1.28	1.47
Oregon.....	1.80		1.72	1.54	1.50	1.50	1.45	1.45	1.55	1.42	1.18	1.10	1.34	1.47

States.	Wages per day outside of harvest without board.													
	1866.	1869.	1875.	1879.	1882.	1885.	1888.	1890.	1892.	1893.	1894.	1895.	1896.	1899.
Vermont.....	\$1.76	\$1.76	\$1.51	\$0.91	\$1.20	\$1.15	\$1.16	\$1.19	\$1.23	\$1.26	\$1.11	\$1.25	\$1.27	\$1.30
Pennsylvania.....	1.59	1.43	1.37	.96	1.20	1.10	1.10	1.09	1.10	1.09	1.00	1.04	1.09	1.15
N. Carolina ..	.72	.74	.72	.58	.68	.67	.61	.62	.63	.58	.54	.54	.56	.60
Texas.....	1.31	1.16	1.14	.92	.93	.96	.95	.97	.98	.90	.84	.81	.89	.90
Iowa.....	1.62	1.52	1.38	1.12	1.34	1.31	1.27	1.23	1.25	1.29	1.17	1.17	1.27	1.40
Oregon.....	1.75		1.47	1.44	1.33	1.30	1.35	1.38	1.55	1.29	1.06	1.00	1.24	1.35

States.	Wages per day outside of harvest with board.													
	1866.	1869.	1875.	1879.	1882.	1885.	1888.	1890.	1892.	1893.	1894.	1895.	1898.	1899.
Vermont.....	\$1.32	\$1.28	\$1.11	\$0.64	\$0.90	\$0.88	\$0.90	\$0.92	\$0.94	\$1.05	\$0.97	\$0.94	\$0.97	\$1.00
Pennsylvania.....	1.10	1.04	.95	.63	.85	.80	.82	.81	.81	.81	.74	.78	.80	.84
N. Carolina ..	.50	.49	.51	.41	.46	.47	.45	.46	.45	.46	.43	.41	.44	.46
Texas.....	.98	.84	.84	.66	.70	.76	.71	.73	.72	.72	.67	.63	.67	.68
Iowa.....	1.19	1.13	1.01	.80	.99	.97	.97	.95	.98	1.00	.88	.93	.99	1.11
Oregon.....	1.40	.....	1.15	1.08	1.00	.95	.98	1.03	1.05	.96	.76	.72	.98	1.00

States.	Wages per month without board.							
	1866.	1869.	1875.	1879.	1882.	1885.	1888.	1890.
Vermont.....				\$32.84	\$32.40	\$29.67	\$19.00	\$23.37
Pennsylvania.....				29.91	58.68	25.89	19.92	22.88
North Carolina ..				13.46	12.76	13.46	11.19	12.86
Texas.....				19.00	18.83	19.50	18.27	20.20
Iowa.....				28.34	28.39	24.85	22.09	26.21
Oregon.....				35.75	.....	38.25	35.45	33.50
								34.00
								32.56
								31.60

States.					1898.		1899.		
	1892.	1893.	1894.	1895.	By the year.	By the season.	By the year.	By the season.	
Vermont.....	\$24.67	\$25.55	\$23.60	\$27.87	\$25.69	\$27.77	\$26.36	\$28.02	
Pennsylvania.....	23.00	22.84	21.82	21.93	20.79	22.60	21.74	23.74	
North Carolina ..	18.30	12.56	11.78	11.59	11.69	12.51	11.95	12.88	
Texas.....	18.75	18.96	17.78	17.85	17.34	18.23	17.54	18.42	
Iowa.....	26.20	27.16	25.29	25.52	24.78	26.02	26.33	27.85	
Oregon.....	34.25	30.58	25.73	23.79	27.86	30.78	29.64	32.82	

AVERAGE WAGES OF FARM LABORERS, 1866 to 1899—Concluded.

States.	Wages per month with board.							
	1866.	1869.	1875.	1879.	1882.	1885.	1888.	1890.
Vermont.....	\$21.00	\$21.40	\$19.37	\$11.50	\$16.00	\$16.20	\$16.40	\$17.35
Pennsylvania.....	18.84	18.05	16.10	11.46	14.21	14.12	14.50	14.60
North Carolina.....	8.15	7.91	8.82	7.76	8.80	8.91	9.00	8.80
Texas.....	12.72	13.21	13.37	11.49	14.03	13.72	12.60	13.30
Iowa.....	18.87	17.87	16.11	13.90	17.95	17.00	17.34	17.00
Oregon.....	22.53	.....	25.67	23.86	24.75	21.25	23.00	22.00

States.	1892.	1893.	1894.	1895.	1898.		1899.	
					By the year.	By the season.	By the year.	By the season.
Vermont.....	\$17.45	\$18.20	\$16.81	\$17.94	\$17.21	\$19.40	\$17.65	\$19.84
Pennsylvania.....	15.00	14.19	13.03	13.66	12.68	14.46	13.41	15.26
North Carolina.....	8.78	8.62	7.95	7.80	7.84	8.78	8.05	9.06
Texas.....	13.00	13.58	12.59	12.55	12.27	13.37	12.41	13.47
Iowa.....	17.75	19.46	17.90	18.15	17.44	18.93	18.58	20.25
Oregon.....	23.00	21.99	17.41	16.54	19.83	23.12	21.09	24.69

The wages of farm laborers as shown here differ in their course but little from those of railway labor. It will be seen that the years 1898 and 1899 have witnessed a gradual advance over the decline following 1892 and 1893, but that, taken as a whole, the highest levels of those years have not yet been reached.

The detailed statement of wages paid in the 14 plants of the American Steel Hoop Company seems to bear out the general conclusions made from the other tables showing the results among combinations. This table shows the rates of wages paid on November 30, 1898, and on November 30, 1899, and the per cent of increase or decrease in the average for each occupation. The figures for the 14 plants show that a total of 4,545 employees received an average wage of \$1.93 per day in November, 1898, and that in November, 1899, the number of employees had increased to 5,873, receiving an average of \$2.27 per day, a gain in average wages of 17.62 per cent.

**DAILY RATES OF WAGES PAID IN 14 PLANTS OF AMERICAN STEEL HOOP COMPANY
BEFORE AND AFTER THEIR ORGANIZATION INTO A COMBINATION.**

[In several of the occupations the wages shown are average daily piecework earnings, and the increase in wages may be due to increased production in 1899 as well as to increase in piece rates.]

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.	Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.			Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.	
Ash heavers....	3 2	\$1.10 1.20	9 1	\$1.25 1.45		Boller repair- ers' helpers..	1 4	\$0.90 1.15 1.75	2 2	\$1.04 1.30	
Average....	5	1.14	10	1.27	+11.40	Average ...	7	1.45	4	1.17	-19.59
Ash men.....	1 3 1	1.25 1.40 1.70	1 1 5	1.50 1.60 1.75		Bolt cutters....			1	1.00	
Average....	5	1.43	9	1.71	+19.93	Bookkeepers ..	1	2.39			
Bend-around hands.....	2 2	1.22 1.26	2 2	1.35 1.40		Brakemen, rail- road.....	1 1 2 4 1	1.08 1.17 1.40 1.70 1.80	1 2 1 2 4	1.20 1.50 1.60 1.80 1.95	
Average....	4	1.24	4	1.37	+10.89	Average....	14	1.67	14	1.85	+11.08
Blacksmiths ...	3 2 4 2 5 1 2 1 3 1 2 1 1 1 1	1.50 1.70 1.75 1.80 2.00 2.10 2.25 2.30 2.50 2.60 2.75 2.80 2.85 3.00 3.00	1 2 1 1 3 2 2 2 1 6 3 3 2 2 1	1.65 1.75 1.87 1.92 2.00 2.08 2.20 2.25 2.30 2.40 2.50 2.60 2.70 3.00 3.12		Bricklayers....	2 1 1 1 2 2 2 6 1 2	1.90 2.00 2.17 2.50 2.68 3.00 3.14 3.60 3.83 4.00	1 1 2 1 2 2 1 1 1 1	1.82 2.00 2.15 2.45 2.50 2.68 2.90 3.00 3.38 3.43	
Average....	29	2.12	36	2.52	+18.82	Average ...	18	3.15	29	3.44	+ 9.21
Blacksmiths' apprentices ..			2	1.04		Bricklayers' ap- prentices ..			1	1.20	
Blacksmiths' helpers.....	1 4 8 2 2 2 1 4 2 3	1.10 1.15 1.25 1.26 1.30 1.35 1.50 1.60 1.70	1 1 2 1 2 3 3 3 3	1.15 1.21 1.25 1.30 1.35 1.37 1.40 1.46 1.50		Bricklayers' helpers.....	5 4 2 3	1.25 1.35 1.40 1.50	6 1 1 4	1.35 1.37 1.40 1.50	
Average....	27	1.35	29	1.52	+12.59	Average ...	14	1.35	22	1.51	+11.81
Bloom boys	2 2 2	1.10 1.20 1.25	2 2 2	1.23 1.40 1.50		Buckle boys ...	2	.59	4	.60 .65	
Average....	6	1.18	6	1.37	+16.03	Average ...	2	.59	6	.61	+ 4.24
Boller repairers	2	2.10	4	1.92		Bundlers	7 10 26 9 11 10 8 6 2 6 1 1 4	1.15 1.25 1.30 1.40 1.45 1.50 1.55 1.60 1.62 1.67 1.75 1.78 1.80	10 2 8 8 3 4 8 6 6 8 13 2	1.37 1.40 1.50 1.61 1.65 1.66 1.61 1.65 1.70 1.72 1.75 1.80	
Average....	2	2.10	8	2.07	- 1.19						

**DAILY RATES OF WAGES PAID IN 14 PLANTS OF AMERICAN STEEL HOOP COMPANY
BEFORE AND AFTER THEIR ORGANIZATION INTO A COMBINATION—Continued.**

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em-ploy-ees.	Rates of wages.	Em-ploy-ees.	Rates of wages.	
Bundlers—Concluded.	2 14 2 1 2	\$1.85 1.95 2.00 2.10 2.11	11 1 1 8 8	\$1.90 1.95 1.96 2.00 2.10	
			6 4 8 2	2.15 2.20 2.25 2.35	
Average....	117	1.51½	129	1.78½	+17.82
Bundlers, boss.	2	2.15	4	2.50	+16.28
Bundlers and shearmen....	6 4 8 3 4 8 10	1.32 1.38 1.52 1.60 1.76 1.83 2.00	7 13 15 6 15 4 1	1.65 1.72 1.90 2.00 2.20 2.29 2.50	
Average....	43	1.67½	50	1.89½	+13.13
Bundlers and shearmen, boss.....	2 1 1	2.00 4.00 4.80	1 1 2	2.24 2.50 5.00	
			1	6.00	
Average ...	4	3.20	5	4.15	+29.69
Bundlers' help-ers	1 7 1 18 1 2 1 1 1 2	1.00 1.35 1.53 1.55 1.56 1.58 1.61 1.65 1.75 2.00	1 9 14 2 1 5 4 2 1 2	1.50 1.60 1.70 1.73 1.74 1.75 1.80 1.85 1.85 2.00	
Average ...	36	1.53½	38	1.70	+10.75
Car inspectors..			1	1.80	
Carpenters	1 2 1 2 2 4 5 1 1 3 1 1	1.50 1.60 1.67 1.75 1.80 1.90 2.00 2.05 2.12 2.25 2.35 2.50	2 2 1 2 1 1 5 1 6 2 1 2	1.65 1.75 1.82 1.98 2.00 2.08 2.15 2.20 2.25 2.29 2.44 2.60 2.75	
Average ...	24	1.95	27	2.15½	+10.51
Carpenters' help-ers.....	2 1 1 5 1	1.20 1.25 1.44 1.60 1.75	2 2 2 1 2	1.25 1.30 1.55 1.65 1.75	
			3	1.80	
Average ...	10	1.48½	12	1.56½	+ 5.39
Cashouse men..	6	1.85	6	1.85	

DAILY RATES OF WAGES PAID IN 14 PLANTS OF AMERICAN STEEL HOOP COMPANY
BEFORE AND AFTER THEIR ORGANIZATION INTO A COMBINATION—Continued.

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.	Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.			Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.	
Chill boys— Concluded.	4	\$1.85	2	\$1.90		Cut-offs.....	1	\$0.90	2	\$1.50	
	.....	.....	6	1.95			1	1.20	.....	.....	
Average ...	12	1.68	20	1.76	+ 4.76		1	2.05	.....	.....	
Chill men.....	4	1.15	8	1.25		Average ...	3	1.38½	2	1.50	+ 8.30
	4	1.60	2	2.00		Dippers.....	2	2.50	1	2.00	
	1	1.85	5	2.15			.....	.....	3	2.75	
	1	2.50	2	2.75		Average ...	2	2.50	4	2.56½	+ 2.60
Average ...	10	1.53½	17	1.78	+15.96	Door boys	2	.50	2	.55	+10.00
Cinder men....	12	1.60	14	1.85	+15.63	Draftsmen.....	1	.76½	1	1.53½	
Cinder snap- pers.....	6	1.60	6	1.85	+15.63		1	3.26	1	3.83½	
Cinder wheel- ers.....	3	1.15	2	1.45			1	3.45	1	4.21½	
	4	1.25	7	1.50		Average ...	3	2.49	3	3.19½	+23.31
Average ...	7	1.20½	9	1.49	+23.65	Drag-downs ...	2	1.35	2	1.50	
Clerks.....	1	.83½	1	.76½			3	1.50	2	1.65	
	3	1.00	4	1.25			2	1.62	8	1.80	
	1	1.15	1	1.34			3	1.75	12	2.00	
	1	1.25	1	1.38			2	1.80	2	2.05	
	1	1.34	2	1.46			6	1.85	1	2.50	
	3	1.45	2	1.50			2	1.90	.....	.....	
	3	1.50	4	1.53½			1	2.09	.....	.....	
	6	1.59½	1	1.76½			1	2.45	.....	.....	
	1	1.59½	5	1.72½		Average ...	22	1.76	27	1.90	+ 7.95
	1	1.65	6	1.91½		Drag-outs.....	4	1.20	4	1.40	
	6	1.66½	3	2.06½			6	1.25	12	1.50	
	2	1.72½	6	2.11			4	1.26	4	1.53	
	1	1.75	1	2.29			4	1.30	2	2.00	
	1	1.87½	1	2.30			2	1.50	4	2.56	
	2	1.91½	2	2.49			2	1.60	2	2.60	
	1	1.92½	1	2.68½		Average ...	22	1.30½	28	1.75½	+34.48
	3	2.08½	2	2.87½		Drivers, coal mine.....	1	1.45	1	1.65	
	1	2.29	1	2.91½			19	1.70	13	1.90	
	9	2.30	1	2.99		Average ...	20	1.68½	14	1.88	+11.57
	6	2.50	1	3.33½		Drivers, boss, coal mine ...	1	1.80	1	2.00	+11.11
	1	2.68½	1	3.47½		Dummy boys ..	4	.80	2	.85	
	3	2.71	2	3.61½			1	.90	2	.90	
	1	2.72	1	3.75			.....	4	1.00		
	2	2.87½	1	3.83½		Average ...	5	.82	8	.98½	+14.02
	1	2.91½	1	4.16½		Edge-uphands.	1	1.00	2	1.20	
	1	3.00	2	4.79			4	1.15	2	1.25	
	1	3.06½	.....	.....			.....	2	1.85		
	1	3.25	.....	.....		Average ...	5	1.12	6	1.26½	+12.95
	2	3.33½	.....	.....		Electricians ...	1	2.10	1	2.40	
	1	3.75	.....	.....			.....	1	2.50		
	1	3.83½	.....	.....		Average ...	1	2.10	2	2.45	+16.67
	1	4.79	.....	.....		Engineers, chief	1	5.00	1	5.17½	+ 3.50
	2	4.83½	.....	.....		Engineers, lo- comotive	1	1.70	1	1.90	
	1	5.75	.....	.....			2	1.80	2	1.95	
	1	6.41½	.....	.....			1	2.00	1	2.40	
Average ...	73	2.30½	53	2.23½	- 3.04		7	2.35	7	2.65	
Collars.....	2	1.20	2	1.40	+16.67	Average ...	11	2.16	11	2.43	+12.50
Coke drawers ..	35	1.89	31	2.12	+12.17						
Coke fillers ..	31	1.65	31	1.90	+15.15						
Conductors, rail- road.....	1	2.00	1	2.40	+20.00						
Contractors (net earnings)	2	10.00	1	10.00							
	.....	.....	2	15.00							
Average ...	2	10.00	3	13.33½	+33.33						
Count-outs.....	2	1.30	2	1.50							
	.....	.....	4	1.75							
Average ...	2	1.30	6	1.66½	+28.06						
Crane boys.....	2	1.20	2	1.25	+ 4.17						

DAILY RATES OF WAGES PAID IN 14 PLANTS OF AMERICAN STEEL HOOP COMPANY BEFORE AND AFTER THEIR ORGANIZATION INTO A COMBINATION—Continued.

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.	Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.			Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.	
Engineers, station- ary.....	2 2 1 11 8 6 2 9 4 5 9 2 5 1 1 13 3 1 1 2 1 1 1 1	\$1.25 1.40 1.45 1.50 1.60 1.65 1.70 1.75 1.80 1.90 2.00 2.10 2.15 2.20 2.25 2.35 2.50 2.62½ 2.70 2.80 2.85 3.00 3.75	2 2 4 8 7 2 7 2 2 11 2 2 2 8 9 7 1 8 18 1 1 3 1 1 1 1	\$1.37½ 1.54 1.60 1.66 1.75 1.76 1.90 2.00 2.08 2.08 2.10 2.24 2.34 2.35 2.40 2.45 2.50 2.56 2.60 2.62 2.65 2.70 3.00 3.14½ 3.25 3.45 3.95		Firemen, station- ary.....	4 8 2 34 8 2 18 18 4 12 2	\$1.35 1.40 1.45 1.50 1.53 1.55 1.60 1.65 1.80 1.85 2.00	2 5 5 2 16 5 2 19 10 14 4 10 14	\$1.48 1.50 1.56 1.59 1.60 1.70 1.71 1.72 1.75 1.80 1.90 1.95 2.00	
Average ...	86	1.97½	111	2.23	+12.91	Average ...	92	1.59½	106	1.75½	+10.08
Errand boys ...	1 1	.33½ .60	1 1 3	.58 .60 .83½		Flaring machine hands.	8 1 2 1 3 3 2	.75 .85 .95 1.00 1.15 1.25 1.60	1 5 1 1 1 1 1 2	.75 .85 .95 1.00 1.25 1.40 1.50 1.75 1.90	
Average ...	2	.41½	5	.73½	+77.11	Average ...	20	1.00½	14	1.19	+18.41
Fagot makers ..	10 1 10 1 4 12 3 3 1	.90 1.00 1.10 1.15 1.20 1.30 1.35 1.40 1.61	10 1 16 1 17 1 3 1 2	1.05 1.20 1.30 1.35 1.37 1.38 1.40 1.61 1.62		Floor hands ...	.....	.....	4	1.80	
Average ...	45	1.16½	52	1.30	+11.59	Foremen, black- smiths.....	1	4.00	1 1	4.25 4.60	
Farmers	1	1.15	1	1.34	+16.52	Average ...	1	4.00	2	4.42½	+10.63
Feeders	2	1.21½	2	1.35	+11.11	Foremen, bun- dlers.....	2 1 1 1	2.00 2.33½ 3.12½ 3.25	1 1 2 1 1	2.00 2.25 2.50 3.33½ 3.75	
Finishers	2 2 2 1	1.26 1.35 1.40 1.50	2 2 2 2	1.40 1.50 1.55 1.75		Average ...	5	2.54	6	2.72½	+ 7.28
Average ...	7	1.36	8	1.55	+13.97	Foremen, flar- ing machines	.....	.....	1	2.45	
Firemen, fur- nace	10 3 2 8 1	1.25 1.26 1.45 1.60 1.75	3 2 6 2 1 4	1.40 1.45 1.50 1.55 1.65 1.75 2.00		Foremen, gas makers	2	2.50	1	3.50	+40.00
Average ...	19	1.35½	19	1.57	+15.87	Foremen, gen- eral.....	1 1 2 8	2.36 3.50 3.66½ 4.66½	1 2 1 1 1 2 2 2 1	2.68½ 3.11 3.22 4.00 4.20 4.61 5.00 5.50	
Firemen, loco- motive	2 1 3	1.10 1.35 1.65	1 1 3	1.10 1.50 1.90		Average ...	7	3.88½	11	4.09½	+ 5.41
Average ...	6	1.41½	5	1.66	+17.31	Foremen, hinge department..	1	3.50	1	3.50	
						Foremen, labor- ers	1 1 1 1 1 3 1 2 1 1 1	1.25 1.35 1.40 1.60 1.65 1.75 1.91½ 2.00 2.11 2.35	3 1 1 6 1 1 2 2 1 1 1	1.40 1.66½ 1.75 1.77 1.81 1.86½ 1.98 2.00 2.11 2.25	

DAILY RATES OF WAGES PAID IN 14 PLANTS OF AMERICAN STEEL HOOP COMPANY BEFORE AND AFTER THEIR ORGANIZATION INTO A COMBINATION—Continued.

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.	Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.			Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.	
Heaters—Con- cluded.	.....	.....	1	\$7.43		Iron loaders .....	.....	.....	5	\$1.50	
.....	.....	.....	2	7.50		.....	.....	.....	1	3.43	
.....	.....	.....	6	7.54		Average .....	.....	.....	6	1.82	
.....	.....	.....	2	7.59		.....	.....	.....	.....	.....	
.....	.....	.....	2	7.60		Janitors	1	\$1.00	1	.61	
.....	.....	.....	1	7.75		.....	1	1.50	1	1.25	
.....	.....	.....	2	7.76		Average	2	1.25	2	.93	-25.20
.....	.....	.....	1	7.92		.....	.....	.....	.....	.....	
.....	.....	.....	1	8.00		Janitresses	1	.37	1	.83	
.....	.....	.....	1	8.50		.....	.....	.....	1	.90	
.....	.....	.....	1	8.51		Average	1	.37	2	.87	+132.00
.....	.....	.....	1	8.75		Keepers, fur- nace.....	2	2.10	2	2.40	
.....	.....	.....	2	9.00		.....	4	2.20	4	2.50	
.....	.....	.....	3	10.00		Average	6	2.16	6	2.46	+13.86
.....	.....	.....	1	11.00		.....	.....	.....	.....	.....	
.....	.....	.....	3	12.00		Keepers' help- ers, furnace.	24	1.70	24	1.95	+14.71
Average ...	87	\$4.81	108	6.38	+32.64	.....	.....	.....	.....	.....	
Heaters' helpers	2	1.10	2	1.00		Laborers	3	1.05	2	1.10	
.....	7	1.25	9	1.75		.....	68	1.10	102	1.15	
.....	8	1.50	2	1.80		.....	4	1.12	20	1.21	
.....	1	1.55	2	1.85		.....	164	1.15	16	1.25	
.....	2	1.57	20	2.00		.....	233	1.25	30	1.30	
.....	16	1.75	4	2.20		.....	124	1.35	321	1.35	
.....	2	1.90	5	2.25		.....	1	1.37	137	1.40	
.....	16	2.00	2	2.42		.....	1	1.38	185	1.50	
.....	4	2.05	10	2.47		.....	1	1.39	3	1.51	
.....	1	2.27	11	2.50		.....	46	1.40	3	1.53	
.....	10	2.50	3	2.60		.....	1	1.41	1	1.54	
.....	1	2.56	4	2.65		.....	13	1.44	72	1.55	
.....	2	2.60	4	2.68		.....	4	1.50	2	1.56	
.....	1	2.65	2	2.75		.....	1	1.53	1	1.57	
.....	10	2.70	1	2.82		.....	20	1.60	63	1.60	
.....	2	3.00	11	2.85		.....	6	1.70	1	1.65	
.....	4	3.12	4	3.00		.....	.....	.....	1	1.70	
.....	2	3.13	6	3.20		.....	.....	.....	1	1.72	
.....	7	3.25	4	3.25		.....	.....	.....	31	1.75	
.....	2	3.30	3	3.50		.....	.....	.....	1	1.76	
.....	8	3.50	1	3.64		.....	.....	.....	3	1.90	
.....	1	4.50	4	3.74		Average ...	690	1.26	996	1.40	+11.51
.....	.....	.....	2	3.76		.....	.....	.....	.....	.....	
.....	.....	.....	6	3.90		Laborers, rail- road	19	1.35	19	1.55	+14.81
.....	.....	.....	3	4.00		.....	.....	.....	.....	.....	
.....	.....	.....	1	4.16		Laborers, stock house.....	5	1.35	8	1.55	
.....	.....	.....	1	4.50		.....	4	1.40	9	1.75	
.....	.....	.....	1	7.00		.....	12	1.50	12	1.90	
Average ...	104	2.24	125	2.68	+19.38	.....	4	1.65	.....	.....	
Hoisters.....	1	1.44	1	1.60		Average	25	1.48	29	1.75	+18.58
.....	1	1.50	1	1.65		.....	.....	.....	.....	.....	
Average ...	2	1.47	2	1.62	+10.54	Ladle men	2	2.45	2	2.60	+ 6.12
Hook-ins.....	1	1.17	1	1.30	+11.11	Ladle men's helpers (boys)	.....	.....	2	.85	
Hook-ups	2	.80	2	1.20		.....	.....	.....	.....	.....	
.....	3	.90	2	1.35		Lay-offs	2	.80	4	.95	
.....	2	1.13	2	1.37		.....	2	.85	24	1.00	
.....	4	1.20	8	1.50		.....	17	.90	12	1.10	
.....	2	1.25	2	1.53		.....	8	1.00	4	1.20	
.....	6	1.35	10	1.60		.....	6	1.10	10	1.25	
.....	2	1.40	4	1.70		.....	4	1.50	4	1.65	
.....	2	1.50	2	1.75		.....	.....	.....	4	1.75	
.....	2	1.60	4	1.89		Average ...	39	1.00	62	1.16	+15.42
.....	1	1.65	1	1.90		.....	.....	.....	.....	.....	
.....	4	1.70	6	2.00		.....	.....	.....	.....	.....	
.....	1	1.77	1	2.16		.....	.....	.....	.....	.....	
.....	7	1.80	4	2.25		.....	.....	.....	.....	.....	
.....	1	1.94	2	2.26		.....	.....	.....	.....	.....	
.....	1	1.95	.....	.....		.....	.....	.....	.....	.....	
Average ...	40	1.44	50	1.72	+19.79	.....	.....	.....	.....	.....	

**DAILY RATES OF WAGES PAID IN 14 PLANTS OF AMERICAN STEEL HOOP COMPANY
BEFORE AND AFTER THEIR ORGANIZATION INTO A COMBINATION—Continued.**

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DAILY RATES OF WAGES PAID IN 14 PLANTS OF AMERICAN STEEL HOOP COMPANY
BEFORE AND AFTER THEIR ORGANIZATION INTO A COMBINATION—Continued.

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.	
Ore crushers...	1 1	\$2.00 2.54	1 1 1 1 1 1	\$1.45 1.56 1.60 1.98 2.82	
Average ...	2	2.27	5	1.87	-17.62
Ore crushers' helpers...	1	1.35	1	1.50	+11.11
Ore filers.....	43	1.65	45	1.90	+15.15
Ore wheelers...	2 1	1.08 1.15	2 1 2 2 2	1.20 1.35 1.45 1.50	
Average	3	1.10 $\frac{1}{2}$	7	1.38	+24.89
Painting cotton ties	3	2.25			
Pickling and liming	3 1 1	1.15 1.40 1.60	5 3	1.40 1.50	
Average ...	5	1.29	8	1.43 $\frac{1}{2}$	+11.24
Pile boys.....	16	.60	4 12 6	.80 .75 .80	
Average ...	16	.60	22	.73 $\frac{1}{2}$	+22.50
Pilers, iron.....	2 1 1 2 3 4	1.12 $\frac{1}{2}$ 1.15 1.17 1.25 1.25 1.50	2 2 6 5	1.25 1.30 1.50 1.60	
Average ...	12	1.29	15	1.47 $\frac{1}{2}$	+14.34
Pipe fitters.....	1	1.75	1	2.25	+28.57
Pit bosses.....	1	3.45	1	3.83 $\frac{1}{2}$	+11.16
Pit bosses, assistant	1	2.25	1	2.50	+11.11
Pit men.....	6 1	1.80 1.90	2 6 2	1.80 1.90 2.00	
Average ...	7	1.81 $\frac{1}{2}$	10	1.90	+ 4.68
Planishing rollers	4 4 2 3 2	.90 1.00 1.25 1.50 1.75	4 4 2 2 1 2 3 2 2 4 4 4 4 4 4	.96 1.00 1.10 1.15 1.25 1.35 1.50 1.60 1.90 2.06 2.25	
Average ...	15	1.20 $\frac{1}{2}$	30	1.50	+24.48
Poke-ins	1 1 4 5 8 2 2 2 3	1.00 1.10 1.17 1.20 1.25 1.30 1.50 1.60	2 1 22 3 2 2 2 2 7	1.25 1.30 1.40 1.45 1.60 1.75 1.98 2.00	
Poke-ins—Concluded.	4 2 2 2 2	\$1.67 1.75 1.80 1.90 2.00	2 2	\$2.10 2.25	
Average ...	38	1.44	45	1.60 $\frac{1}{2}$	+11.46
Pressmen	3 6	.83 $\frac{1}{2}$ 1.00	3 6	.83 $\frac{1}{2}$ 1.20	
Average ...	9	.94 $\frac{1}{2}$	9	1.08	+14.29
Pressmen, head	1	2.00	1	2.25	+12.50
Puddlers	22 38 40 46 48 8 76 7 3 1	2.50 2.57 2.76 3.14 3.20 3.40 3.70 4.00 4.50 5.50	8 83 33 4 3 11 60 58 48 1 138 2 2	2.75 2.85 3.40 3.50 3.75 3.90 3.96 4.00 4.18 4.50 4.60 5.00 6.00	
Average ...	289	3.17	451	3.92 $\frac{1}{2}$	+23.82
Puddlers, boss	1 1 1 2 1 1 1 1	1.91 $\frac{1}{2}$ 2.00 2.51 2.87 $\frac{1}{2}$ 3.45 3.50 5.17 $\frac{1}{2}$	1 1 1 2 1 1 1 1	2.30 2.50 2.78 2.87 $\frac{1}{2}$ 3.83 $\frac{1}{2}$ 4.00 5.75	
Average ...	8	3.03 $\frac{1}{2}$	8	3.36 $\frac{1}{2}$	+10.87
Puddlers' helpers.....	38 40 48 68 76 6 7 6	1.28 1.60 1.67 1.80 2.00 2.75 3.00 3.75	83 10 60 33 54 48 10 10 46 92 5	1.42 $\frac{1}{2}$ 2.25 2.27 2.35 2.40 2.42 2.50 2.65 2.67 2.68 2.75	
Average ...	289	1.82 $\frac{1}{2}$	451	2.29 $\frac{1}{2}$	+25.75
Pull-ups	4 1 2 6 2	.50 .60 1.08 1.10 1.25	4 2 2 2 7	.66 .75 .85 1.20 1.30	
Average ...	15	.92 $\frac{1}{2}$	17	1.02	+10.27
Pump tenders	1 2	1.30 1.75	1 2	1.60 2.00	
Average ...	3	1.60	3	1.86 $\frac{1}{2}$	+16.56
Punchers.....	2	1.00	1 1	1.00 1.10	
Average ...	2	1.00	2	1.05	+ 5.00
Push-downs			4	1.50	
Push-ups			8	1.65	

[illegible]

a Per day at tonnage rates.

7

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.	Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.			Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.	
Roll turners' helpers.....	1	\$1.50	1	\$1.75		Scale men.....	12	\$1.70	12	\$1.95	+1.8
	1	2.00	1	2.50		Scale wheelers.....	3	1.37	3	1.50	+9.5
	1	2.50	1	3.00							
Average ...	3	2.00	3	2.41	+20.75	Scrap boys.....			1	.60	
									1	.85	
									1	1.00	
Roughers.....	2	1.17	2	2.34		Average.....			3	.81	
	2	1.75	2	2.52							
	2	1.95	1	2.64		Scrapers.....	3	.65	4	.70	
	1	2.00	3	2.75			3	.90	4	1.04	
	1	2.20	2	2.62			1	1.00	1	1.10	
	6	2.25	4	2.88			2	1.04	4	1.15	
	2	2.28	3	2.97			3	1.25	3	1.25	
	6	2.30	1	3.00			1	1.30	2	1.30	
	2	2.35	2	3.04			4	1.45	3	1.50	
	5	2.45	4	3.10			4	1.50	1	1.60	
	3	2.48	4	3.12			5	1.60	2	1.98	
	1	2.50	2	3.14					2	2.50	
	2	2.52	4	3.73		Average...	26	1.25	26	1.31	+4.8
	1	2.57	1	3.25							
	2	2.68	1	3.33		Scrapers, cast house.....	2	1.40	2	1.65	+17.9
	4	2.80	2	3.36							
	4	2.81	1	3.39		Scrapers, stock house.....	4	1.35	4	1.55	
	3	2.89	9	3.42			2	1.50	2	1.75	
	2	2.90	9	3.50		Average...	6	1.40	6	1.61	+15.7
	4	2.96	3	3.55							
	4	3.00	1	3.58		Shearmen.....	2	1.15	1	1.25	
	2	3.06	3	3.60			14	1.20	2	1.40	
	1	3.08	4	3.66			8	1.25	21	1.50	
	1	3.10	2	3.71			1	1.30	1	1.56	
	2	3.20	4	3.75			2	1.37	18	1.60	
	5	3.25	4	3.77			4	1.40	1	1.61	
	3	3.27	4	3.79			1	1.43	12	1.65	
	4	3.30	5	3.80			6	1.45	4	1.66	
	2	3.35	2	3.86			8	1.46	4	1.67	
	4	3.39	9	3.90			1	1.47	1	1.68	
	4	3.40	6	3.93			4	1.48	40	1.70	
	1	3.41	2	3.97			2	1.49	2	1.71	
	2	3.44	6	4.00			18	1.50	2	1.72	
	3	3.50	2	4.03			20	1.55	1	1.74	
	5	3.54	2	4.04			2	1.58	22	1.75	
	2	3.57	9	4.10			4	1.59	1	1.78	
	1	3.60	4	4.13			16	1.60	5	1.80	
	2	3.70	8	4.23			1	1.65	2	1.82	
	5	3.75	5	4.25			10	1.66	4	1.84	
	1	3.76	2	4.30			1	1.67	9	1.85	
	4	3.85	3	4.48			2	1.68	14	1.90	
	2										

DAILY RATES OF WAGES PAID IN 14 PLANTS OF AMERICAN STEEL HOOP COMPANY BEFORE AND AFTER THEIR ORGANIZATION INTO A COMBINATION—Continued.

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.	
Shearmen, boss.	1	\$5.50	1	\$8.00	+45.45
Shippers	1	2.87	1	2.68	
	1	3.19	1	3.06	
Average ...	2	3.03	2	2.87	- 5.27
Shippers, assist- ant.....	1	.76	1	1.15	+50.33
Slag men.....	2	1.05	2	1.70	
	1	1.80	1	1.75	
Average ...	3	1.30	3	1.71	+31.92
Stable bosses...	1	1.55	1	1.72	
			1	2.30	
Average ...	1	1.55	2	2.01	+29.58
Stable men.....	1	1.75	1	1.85	+ 5.71
Stamping-ma- chine boys...	12	.60	12	.60	
Stenographers ..	1	1.44	1	2.53	
	1	2.50			
Average ...	2	1.97	1	2.53	+28.43
Stockers, coal ..	1	1.25	1	1.50	
	1	1.59	5	1.60	
	1	1.60	2	1.75	
	1	1.82	2	2.00	
			1	4.26	
Average ...	4	1.56	11	1.93	+23.64
Stockers, metal.			2	1.35	
			6	1.65	
			4	1.75	
			1	2.00	
Average ...			13	1.66	
Stockers, mill ..	10	1.35	12	1.40	
	3	1.50	4	1.70	
Average ...	13	1.38	16	1.47	+ 6.50
Stockers to catchers.....	2	1.17	2	1.30	
	1	1.26	1	1.40	
Average ...	3	1.20	3	1.33	+11.25
Stockers to shearmen	2	1.35	2	1.55	
	1	1.58	1	1.75	
Average ...	3	1.42	3	1.61	+13.33
Stocking and grinding ore.	1	1.75	1	2.70	+54.29
Stoppers	2	1.00	2	1.20	+20.00
Storekeepers ...	1	1.70	1	1.00	
	2	1.72	1	1.90	
			1	1.91	
Average ...	3	1.71	3	1.60	- 6.41
Storeroom hands.....	1	2.00	1	1.75	
			1	2.00	
Average ...	1	2.00	2	1.87	- 6.25

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.	
Stove men.....	2	\$1.90	2	\$2.15	
	4	1.95	4	2.20	
Average ...	6	1.93	6	2.18	+12.92
Straighteners..	4	.68	3	.70	
	6	.72	4	.75	
	6	.77	6	.80	
	23	.80	6	.85	
	2	.90	6	.90	
	7	1.00	10	1.00	
	16	1.15	5	1.15	
	1	1.17	3	1.20	
	9	1.20	1	1.30	
	2	1.45	11	1.40	
	1	1.50	8	1.50	
	2	1.72	11	1.60	
	3	1.85	6	1.80	
	2	2.25	6	2.00	
			2	2.02	
			2	2.50	
Average ...	84	1.03	90	1.31	+26.57
Stranners.....	4	1.08	2	1.10	
	1	1.10	4	1.20	
	1	1.15	10	1.25	
	4	1.20	11	1.35	
	2	1.22	7	1.40	
	11	1.25	6	1.45	
	9	1.28	14	1.50	
	4	1.30	4	1.55	
	3	1.32	11	1.56	
	12	1.35	17	1.60	
	6	1.45	7	1.65	
	20	1.50	2	1.70	
	7	1.60	9	1.72	
	5	1.66	2	1.80	
	2	1.68	2	1.95	
	7	1.75	10	2.00	
	9	1.80	7	2.08	
	1	1.85	3	2.10	
	4	1.88	2	2.15	
	9	2.00	3	2.20	
	6	2.25	8	2.25	
			8	2.29	
			4	2.50	
			4	2.75	
			6	3.00	
Average ...	127	1.54	163	1.77	+15.26
Tapcinder men	2	1.45	5	1.60	+10.34
Teamsters	5	1.10	5	1.15	
	3	1.25	1	1.35	
	2	1.26	1	1.40	
	3	1.35	11	1.50	
	10	1.40	22	1.60	
	11	1.50	14	1.65	
	5	1.60	5	1.80	
	2	1.66	5	1.85	
	4	1.70	1	1.90	
	9	1.80	4	2.20	
	4	2.00			
Average ...	58	1.53	69	1.62	+ 6.21
Third hands or firemen.....	22	1.00	33	1.25	+25.00
Timekeepers ..	1	1.53	1	1.91	
	1	2.91	1	3.61	
Average ...	2	2.22	2	2.76	+24.27

DAILY RATES OF WAGES PAID IN 14 PLANTS OF AMERICAN STEEL HOOP COMPANY BEFORE AND AFTER THEIR ORGANIZATION INTO A COMBINATION—Concluded.

Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.	Occupations.	Nov. 30, 1898.		Nov. 30, 1899.		Per cent of increase or decrease.
	Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.			Em- ploy- ees.	Rates of wages.	Em- ploy- ees.	Rates of wages.	
Top fillers.....	12 4	\$1.80 2.00	12 4	\$2.05 2.30		Watchmen— Concluded.	.....	.....	1 1 3 2	\$1.85 1.90 1.95 2.00	
Average ...	16	1.85	16	2.11½	+14.32	Average ...	32	\$1.40	35	1.56	+11.43
Track men, rail- road	2	1.12½	2	1.25	+11.11	Water boys	4	.60	2 1 1	.65 .75 1.05	
Trappers	2 2	.60 .70	2 2	.60 .70		Average ...	4	.60	4	.77½	+29.17
Average ...	4	.65	4	.65		Water tenders ..	2 2 7 4 4 2	1.25 1.85 1.50 1.60 1.75 1.95	2 2 2 8 2 4	1.50 1.60 1.65 1.72 1.90 2.00	
Unloaders.....	6 8 9 2 1 4	1.40 1.60 1.75 1.80 2.00 2.25	8 15 6 10 1 4	1.40 1.75 1.80 1.90 2.00 2.25		Average ...	21	1.57	26	1.80	+14.65
Average ...	30	1.72	43	1.78	+ 3.49	Weigh boys....	1 3	.50 .90	1 2 7	.70 .90 1.00	
Unloaders, boss	1	4.60	1	6.00	+30.43	Average ...	4	.80	10	.95	+18.75
Warehousemen	5 6 6 9 17 3 6 1 4 4 3	1.15 1.25 1.30 1.40 1.42 1.50 1.52 1.60 1.75 2.00 2.25	7 3 7 6 1 38 1 6 5 3 1	1.25 1.40 1.50 1.55 1.57 1.60 1.64 1.65 1.75 1.76 1.85		Weigh men....	3 2 1 3 4 1 2 1 1	1.25 1.40 1.41 1.50 1.55 1.60 1.90 2.05 2.50	1 7 4 7 2 1 1 1 1	1.25 1.50 1.66½ 1.70 1.75 1.80 1.90 2.00 2.10 2.25	
Average ...	64	1.48	89	1.64	+10.81	Average ...	18	1.59	29	1.75	+10.06
Warehousemen, boss	1	6.00	1	8.00	+33.33	Wheelers, metal	1 3 1 2	1.40 1.50 1.60 1.75	1 5 2	1.40 1.70 1.90	
Washermen....	1 1	1.44 1.53	1 1	1.60 1.70		Average ...	7	1.57	8	1.71½	+ 9.24
Average ...	2	1.48½	2	1.65	+11.11	Wipers	2 1	1.55 1.65	2 1	1.80 1.90	
Watchmen.....	1 3 4 5 1 6 1 4 3 4	1.00 1.15 1.20 1.25 1.30 1.35 1.45 1.50 1.75 1.80	1 2 6 3 2 1 5 2 3 3	1.20 1.25 1.35 1.37 1.37½ 1.40 1.50 1.60 1.65 1.75		Average ...	3	1.58½	3	1.83½	+15.77
						Yard masters ..	1	2.68½	1	2.87½	+ 7.08
						All occupa- tions.....	4,545	1.93	5,873	2.27	+17.62

PRICES FIXED BY COMBINATIONS.—Probably the most important economic effect of the combinations is to be found in their influence upon prices; next, that of their influence upon wages. Before entering upon the study of the course of prices before and after the formation of certain special combinations it will be useful to note the direct efforts made by the combinations to fix prices for the consumers. Out of 28 combinations answering the question as to whether the organiza-

tion fixed the prices at which dealers shall sell to the consumers 2 only answered in the affirmative. They state that the penalty for making any variation from the price fixed was the cutting off of the supply. Twenty-four of the combinations answered the question directly in the negative and 2 reported that they did not sell to dealers, while 13 made no answer. It is not unlikely that an effort more or less determined is made by these silent combinations to fix prices, although one could not make that assumption regarding them all. One combination stated that, while not attempting to fix prices, it did give an additional discount to those customers who dealt exclusively with it, and in several cases the larger buyers receive special discounts beyond those given to the smaller ones.

To the questions as to whether they require that persons, firms, or corporations dealing with them shall agree not to buy from or sell to others than the combination itself only 2 replied in the affirmative, 27 replied in the negative, while 12 made no answer.

None of the combinations reported that they require any of the persons, firms, or corporations dealing with them to buy all of their goods from them or sell all their goods to them. Twenty-six distinctly asserted that no such agreements were made, whereas 15 left the question unanswered.

As was stated earlier, practically all of these combinations sell goods in all sections of the United States, while very many of them carry on also an exporting business. Generally speaking, the prices fixed by the combinations are the same throughout the United States, with proper allowances made for the difference in the cost of transportation. Three organizations, however, stated that the prices are not fixed on the same basis; 1 stated that they are approximately the same. Five of the combinations allow their agents, however, to cut their regular rates to meet competitors, while 1 other reported that the "central office makes prices at times to meet competition and secure sales." Twenty-three, however, stated distinctly that their agents are not allowed under any circumstances to cut prices.

In the case of export prices the situation is somewhat different. Sixteen stated that their export prices are the same as the prices within the boundaries of the United States, due allowance being made for transportation; 3 more said that they are approximately so, while 10 stated that the prices differ; 8 of the 10 giving lower prices to foreign buyers in order to secure their market, 1 reporting higher or lower prices to meet European competition, and 1 reporting higher prices in foreign countries.

MARKET PRICES BEFORE AND AFTER COMBINATION.—These prices cover all articles manufactured or controlled by combinations, so far as such prices were obtainable. The prices were derived from authoritative sources, in most cases from the market quotations.

The tables of prices, extending over a period of several years ending with 1899 and, generally speaking, giving the average monthly market prices, furnish material for judgment on economic conditions from various points of view. The prices given are, generally speaking, arranged in two forms. One form gives the average monthly price per unit of product (as of flour per barrel, of wheat per bushel, of pig iron per ton, of oil per gallon, of sugar per pound, etc.); the other gives relative prices, the first price being fixed at 100 and the following prices showing the monthly variation downward or upward from this base. For most purposes, when one wishes to show the general trend of industrial conditions, this arrangement of prices is probably the most useful. To show the effect of industrial combination upon prices it is best to consider the subject of price in a somewhat different way. Nearly all of the industrial combinations represented in these tables of prices are manufacturing corporations. If through their power they affect prices to their advantage, it must be either in the way of decreasing the price of the raw material or of increasing the price of the finished product more than it would be possible for competing establishments to do; i. e., the difference in these prices will be increased. It can readily be seen that if one organization controls 80 or 90 per cent of the entire output of the country in any special line there is reason to think it might exert such an influence upon prices, temporarily, at least, if it seemed good policy for it to do so. Being by all odds the largest buyer of raw material in the market, if it demanded especially favorable terms, such terms would probably be granted. On the other hand, if it is the seller of so large a percentage of any finished product, the market can certainly not be supplied within a brief space of time without purchasing from the combination in question. This would enable it, apparently, to fix prices of its product more or less arbitrarily.

In order to determine what has in fact been done by the combinations, it is necessary to make a direct comparison between the prices of the raw materials and of the finished product. The profits which are to be affected depend mainly upon the difference between the two. In order to make a comparison to advantage one needs to know enough about the process of manufacture to determine what should be the unit of comparison in any specific case. Many manufactured products have so great a number of raw materials entering into their composition that the comparison of the price of the finished product with any one or two of the raw materials entering into its composition would give no clear conception of the influence exerted. In other cases, as in the refining of sugar, the raw material being mainly a single article—raw sugar—the price of the finished product depends very largely upon the price of the raw material, and the difference between the two, the so-called “margin,” would represent the cost of manufacture.

the profit. If the combination can exert influence upon prices, this influence will appear in the increase of the margin, increasing the profit if it is for the benefit of the combination to have the profit increased; or, possibly, for short periods lessening the margin, and thus lessening or completely taking away the profit if it is desired to force competitors out of the field or to compel them to join the combination. A study of prices, then, to determine the effect of industrial combination upon social welfare should be a study of the margin, or the difference between the price of the raw material and the finished product.

Care must be taken also not to be misled in making a comparison of relative prices representing the price of the raw material and of the finished product. The relative prices represent percentages of increase or decrease from a fixed base. If the percentages of increase of the raw material and of the finished product were the same and the percentage of increase in the margin corresponded, it might be wrong to infer that the profit of the combination remained the same or that the combination had exerted through its own power no influence upon the price of the finished product. For example, if the price of the raw material were \$2 per unit and the price of the finished product were \$3 per unit at any one time, the margin would be \$1 per unit. If now the price of the raw material were to increase 50 per cent, so that the relative price would stand at 150, this would represent \$3. The same relative price, 150, representing the price of the finished product, would stand for \$4.50. Considering the relative prices alone the margin—the difference—would appear not to have changed; but, as a matter of fact, the margin between actual prices would have increased from \$1 to \$1.50 per unit. If, therefore, the cost of manufacture remained the same the profit would have very greatly increased, although it is probable that it would not have increased quite 50 per cent, as one might infer. Generally speaking, in manufacture there is some waste of the raw material. As the price of the raw material increases the value of this waste increases, so that to insure the same profit, unless there have been some improvements in the method of manufacture, the margin would increase slightly, though not at all proportionately with the price of the raw material.

It is, of course, generally true that in all lines of manufacture, as time goes on, there are improvements in the methods, so that we might expect that in a series of prices extending over several years the margin between the price of the raw material and of the finished product would lessen slightly, even though the profits were not at all lessened. It is naturally true that these conditions will vary in each separate industry, so that one is not justified in basing too positive conclusions upon such figures. While it may be generally true that the cost of manufacture lessens slightly as the years go on, in indi-

vidual cases or for short periods of time this is often not true. For example, during the last year there has been a very decided increase in the price of iron. This increase in the price of iron has increased the cost of manufacture in many branches of industry entirely remote from the iron industry, branches in which iron does not appear at all as a raw material. For example, in the refining of oil so much iron enters into the plant and is there so rapidly destroyed that an increase in the price of iron increases the cost of refined oil. In the refining of sugar bone black is in many cases used in the process, so that if for any reason there comes a decided increase in the price of bone black it would add to the cost of refining, and the margin between the raw and refined sugar should increase somewhat to insure the same profit. In the manufacture of flour from wheat there are the by-products of bran and middlings, the prices of which in many instances are affected by conditions different from those which affect the price of either wheat or flour. Many other similar examples, of course, might be given, although, generally speaking, it would require an expert knowledge of the process of manufacture to draw absolute conclusions in any one line from the figures given.

With these statements, therefore, it will be profitable to consider somewhat carefully several of the tables of prices given, calling attention emphatically, first, to the danger of drawing too positive conclusions unless one is thoroughly familiar with the process of manufacture in the line under consideration and is certain that he has taken into account all of the modifying factors; and, second, to the danger of judging the effect of the combinations from the variations in the relative prices instead of from the margin, or the difference between the actual prices per unit of the raw materials which enter into the composition of the product and the price of a unit of the finished product.

SUGAR.—The standard finished product of the sugar refineries in this country is granulated sugar. The grade of raw sugar which forms the basis of prices for raw sugar and of all calculations in connection with the sugar market is the 96° centrifugal sugar. Out of 100 pounds of the 96° centrifugal there are obtained from 92 to 93 pounds—possibly sometimes more—of granulated sugar. In the tables following are given for the years 1880 to 1899 the average monthly New York prices per pound of granulated and raw sugar, and the difference between these prices; also the relative monthly prices of granulated and raw sugar based upon the above prices. The sugar trust began operations in November, 1887.

MONTHLY PRICES OF GRANULATED SUGAR AND THE MATERIAL ENTERING INTO ITS MANUFACTURE AT NEW YORK, 1880 TO 1899.

[The prices shown were furnished by Willett & Gray, publishers of the Weekly Statistical Sugar Trade Journal, N. Y. The combination controlling a large proportion of this product was organized in 1887.]

Year and month.	Product—granulated sugar, per pound.	Material—sugar 96° centrifugal, per pound.	Difference.	Year and month.	Product—granulated sugar, per pound.	Material—sugar 96° centrifugal, per pound.	Difference.
1880.				1885.			
January.....	\$0.09687	\$0.08550	\$0.01037	July.....	\$0.06453	\$0.05968	\$0.00485
February.....	.09343	.08187	.01156	August.....	.06750	.06062	.00688
March.....	.09625	.08546	.01079	September.....	.06906	.06187	.00719
April.....	.09387	.08575	.00812	October.....	.06546	.06098	.00453
May.....	.09359	.08500	.00859	November.....	.06593	.06000	.00593
June.....	.09921	.08578	.01343	December.....	.06625	.06250	.00375
July.....	.10000	.08725	.01275				
August.....	.10340	.08406	.01934	1886.			
September.....	.09987	.08425	.01562	January.....	.06625	.06125	.00500
October.....	.09437	.07813	.01624	February.....	.06140	.06703	.00457
November.....	.09375	.08156	.01219	March.....	.06225	.05562	.00663
December.....	.09550	.08362	.01188	April.....	.06810	.06796	.00114
				May.....	.06343	.05484	.00859
1881.				June.....	.06185	.05437	.00748
January.....	.09615	.08421	.01094	July.....	.06195	.05390	.00805
February.....	.09187	.08297	.00890	August.....	.06065	.05237	.00828
March.....	.09250	.08420	.00830	September.....	.05965	.05296	.00669
April.....	.09250	.08062	.01188	October.....	.05825	.05187	.00638
May.....	.09875	.08234	.01641	November.....	.05690	.05166	.00524
June.....	.10475	.08500	.01875	December.....	.05725	.05175	.00550
July.....	.10000	.08550	.01450				
August.....	.09556	.08500	.01056	1887.			
September.....	.09950	.08575	.01375	January.....	.05825	.05200	.00625
October.....	.10450	.08765	.01685	February.....	.05687	.06125	.00438
November.....	.09615	.08750	.00865	March.....	.06725	.06150	.00575
December.....	.09287	.08187	.01100	April.....	.05689	.06171	.00482
				May.....	.05734	.06125	.00391
1882.				June.....	.05850	.06187	.00337
January.....	.09300	.07875	.01425	July.....	.05935	.05265	.00670
February.....	.09218	.07781	.01437	August.....	.06037	.05312	.00725
March.....	.09312	.07937	.01375	September.....	.06078	.05390	.00688
April.....	.09775	.08212	.01563	October.....	.06602	.05604	.00998
May.....	.09630	.08152	.01478	November.....	.06680	.05937	.00743
June.....	.09484	.08062	.01422	December.....	.06875	.05940	.00935
July.....	.09380	.08025	.01355				
August.....	.09250	.08000	.01250	1888.			
September.....	.09203	.08075	.01128	January.....	.07125	.06950	.00175
October.....	.09187	.08012	.01175	February.....	.06800	.05513	.01287
November.....	.08006	.07984	.00022	March.....	.06750	.06435	.00315
December.....	.08725	.07690	.01035	April.....	.06750	.05500	.01250
				May.....	.06750	.05480	.01270
1883.				June.....	.06806	.05500	.01306
January.....	.06637	.07700	.00967	July.....	.07625	.05898	.01727
February.....	.06843	.07625	.01218	August.....	.07550	.06245	.01305
March.....	.08859	.07750	.01109	September.....	.07656	.06490	.01166
April.....	.08712	.07635	.01077	October.....	.07490	.06187	.01303
May.....	.08815	.07812	.01003	November.....	.07250	.06240	.01010
June.....	.08859	.07640	.01219	December.....	.07250	.06200	.01050
July.....	.08850	.07626	.01224				
August.....	.08656	.07562	.01094	1889.			
September.....	.08710	.07568	.01142	January.....	.07050	.06550	.00500
October.....	.08587	.07687	.00900	February.....	.07000	.05568	.01432
November.....	.08109	.07580	.00529	March.....	.07255	.06112	.01143
December.....	.07937	.07065	.00872	April.....	.08406	.07375	.01031
				May.....	.08550	.07312	.01238
1884.				June.....	.09100	.08025	.01075
January.....	.07812	.06775	.01037	July.....	.09062	.07987	.01075
February.....	.07593	.06734	.00859	August.....	.08300	.06912	.01388
March.....	.07300	.06437	.00863	September.....	.08000	.06375	.01625
April.....	.06968	.06265	.00703	October.....	.07235	.06046	.01189
May.....	.07187	.06109	.01078	November.....	.06890	.05784	.01106
June.....	.06650	.05700	.00950	December.....	.06750	.06000	.00750
July.....	.06750	.05906	.00844				
August.....	.06587	.05675	.00912	1890.			
September.....	.06484	.05563	.00921	January.....	.06475	.05688	.00787
October.....	.06390	.05609	.00781	February.....	.06312	.05625	.00687
November.....	.06141	.05608	.00533	March.....	.06262	.05497	.00765
December.....	.05912	.05336	.00576	April.....	.06132	.05484	.00648
				May.....	.06140	.05437	.00703
1885.				June.....	.06437	.05449	.00988
January.....	.06162	.05487	.00675	July.....	.06220	.05437	.00783
February.....	.06156	.05546	.00610	August.....	.06142	.05609	.00533
March.....	.06000	.05382	.00618	September.....	.06000	.05667	.00333
April.....	.06062	.05375	.00687	October.....	.05992	.05668	.00324
May.....	.06037	.05390	.00647	November.....	.06187	.05601	.00586
June.....	.06037	.05162	.00875	December.....	.06050	.05567	.00483

MONTHLY PRICES OF GRANULATED SUGAR AND THE MATERIAL ENTERING INTO ITS MANUFACTURE AT NEW YORK, 1880 to 1899—Concluded.

Year and month.	Product—granulated sugar, per pound.	Material—sugar 96° centrifugal, per pound.	Difference.	Year and month.	Product—granulated sugar, per pound.	Material—sugar 96° centrifugal, per pound.	Difference.
1891.				1896.			
January	\$0.05830	\$0.06276	\$0.00654	July	\$0.04350	\$0.03265	\$0.01085
February	.06320	.05590	.00730	August	.04307	.03295	.01012
March	.05968	.05200	.00768	September	.04225	.03280	.00945
April	.04600	.03516	.00984	October	.04458	.03577	.00881
May	.04326	.03250	.01076	November	.04230	.03396	.00834
June	.04137	.03375	.00762	December	.04424	.03540	.00884
July	.04265	.03357	.00908	1896.			
August	.04154	.03424	.00730	January	.04654	.03800	.00854
September	.04337	.03428	.00909	February	.04667	.04031	.00636
October	.04233	.03549	.00684	March	.04780	.04152	.00628
November	.04137	.03485	.00652	April	.05092	.04273	.00819
December	.04072	.03486	.00587	May	.04992	.04125	.00867
1892.				June	.04667	.03671	.00996
January	.03980	.03476	.00504	July	.04443	.03387	.01056
February	.03920	.03432	.00488	August	.04535	.03406	.01129
March	.04222	.03906	.00916	September	.04470	.03140	.01330
April	.04230	.03125	.01105	October	.03984	.03062	.00922
May	.04220	.03090	.01130	November	.04100	.03298	.00802
June	.04256	.03123	.01133	December	.04100	.03234	.00866
July	.04190	.03098	.01092	1897.			
August	.04320	.03232	.01088	January	.04052	.03180	.00872
September	.04262	.03611	.01251	February	.04070	.03215	.00855
October	.04720	.03470	.01250	March	.04140	.03248	.00892
November	.04630	.03375	.01255	April	.04332	.03306	.01026
December	.04600	.03401	.01199	May	.04260	.03280	.00980
1893.				June	.04410	.03453	.00957
January	.04600	.03470	.01130	July	.04606	.03600	.01006
February	.04553	.03424	.01129	August	.04720	.03750	.00970
March	.04534	.03443	.01091	September	.04803	.03876	.00927
April	.04915	.03844	.01071	October	.04818	.03843	.00975
May	.05110	.04118	.00992	November	.04720	.03843	.00877
June	.05220	.04375	.00845	December	.04840	.04038	.00802
July	.05257	.04170	.01087	1898.			
August	.05090	.03650	.01430	January	.04936	.04132	.00804
September	.05080	.03740	.01340	February	.04945	.04150	.00795
October	.05080	.03938	.01142	March	.04865	.04098	.00767
November	.04472	.03170	.01302	April	.04993	.04156	.00837
December	.04204	.02925	.01279	May	.05098	.04230	.00868
1894.				June	.05080	.04286	.00794
January	.03920	.02885	.01035	July	.05080	.04125	.00955
February	.04090	.03242	.00848	August	.05080	.04234	.00846
March	.04122	.03145	.00977	September	.05172	.04349	.00823
April	.03980	.02847	.01133	October	.04735	.04238	.00497
May	.03922	.02821	.01101	November	.04880	.04385	.00495
June	.03905	.03041	.00864	December	.04846	.04401	.00445
July	.04280	.03146	.01134	1899.			
August	.04272	.03447	.00825	January	.04711	.04280	.00431
September	.04675	.03760	.00915	February	.04720	.04326	.00394
October	.04362	.03660	.00702	March	.04816	.04396	.00421
November	.04040	.03510	.00530	April	.04930	.04578	.00352
December	.03800	.03310	.00490	May	.05080	.04656	.00424
1895.				June	.05184	.04626	.00558
January	.03740	.03021	.00719	July	.05210	.04453	.00757
February	.03710	.03069	.00641	August	.05122	.04524	.00598
March	.03815	.03000	.00815	September	.04874	.04375	.00499
April	.03860	.03000	.00860	October	.04795	.04310	.00485
May	.04207	.03296	.00911	November	.04795	.04265	.00530
June	.04350	.03357	.00993	December	.04795	.04250	.00545

RELATIVE MONTHLY PRICES OF GRANULATED SUGAR AND THE MATERIAL ENTERING INTO ITS MANUFACTURE AT NEW YORK, 1880 TO 1899.

[The combination controlling a large proportion of this product was organized in 1887.]

Year and month.	Product—granulated sugar.	Material—sugar 96° centrifugal.	Year and month.	Product—granulated sugar.	Material—sugar 96° centrifugal.	Year and month.	Product—granulated sugar.	Material—sugar 96° centrifugal.
1880.			1885.			1891.		
Jan.....	100.0	100.0	July.....	67.3	69.8	Jan.....	61.9	61.7
Feb.....	97.5	95.8	Aug.....	70.4	70.9	Feb.....	65.9	65.4
Mar.....	100.4	100.0	Sept.....	72.0	72.4	Mar.....	62.3	60.8
Apr.....	97.9	100.3	Oct.....	68.3	71.3	Apr.....	46.9	41.1
May.....	97.6	99.4	Nov.....	68.8	70.2	May.....	45.1	38.0
June.....	103.5	100.3	Dec.....	69.1	73.1	June.....	43.2	39.5
July.....	104.3	102.0				July.....	44.5	40.0
Aug.....	107.9	98.3	1886.			Aug.....	43.3	40.0
Sept.....	104.2	98.5	Jan.....	69.1	71.6	Sept.....	45.2	40.1
Oct.....	98.4	91.4	Feb.....	64.0	66.7	Oct.....	44.2	39.2
Nov.....	97.8	95.4	Mar.....	64.9	66.1	Nov.....	43.2	40.8
Dec.....	99.6	97.8	Apr.....	71.0	67.8	Dec.....	42.5	40.8
			May.....	66.2	64.1			
1881.			June.....	64.5	63.6	1892.		
Jan.....	99.2	98.5	July.....	64.6	63.0	Jan.....	41.5	40.7
Feb.....	95.8	97.0	Aug.....	63.3	61.3	Feb.....	40.9	40.1
Mar.....	96.5	98.5	Sept.....	62.1	61.9	Mar.....	44.0	38.7
Apr.....	96.5	94.3	Oct.....	60.8	60.7	Apr.....	44.1	36.5
May.....	103.0	96.3	Nov.....	59.4	60.4	May.....	44.0	36.1
June.....	109.3	100.6	Dec.....	59.7	60.5	June.....	44.4	36.5
July.....	104.3	100.0				July.....	43.7	36.2
Aug.....	99.7	99.4	1887.			Aug.....	45.1	37.8
Sept.....	103.8	100.3	Jan.....	60.8	60.8	Sept.....	50.7	42.2
Oct.....	109.0	102.5	Feb.....	59.3	59.9	Oct.....	49.2	40.6
Nov.....	100.3	102.3	Mar.....	59.7	60.2	Nov.....	48.3	39.5
Dec.....	96.9	95.8	Apr.....	59.3	60.5	Dec.....	48.0	39.8
			May.....	59.8	59.9			
1882.			June.....	61.0	60.7	1893.		
Jan.....	97.0	92.1	July.....	61.9	61.6	Jan.....	48.0	40.6
Feb.....	96.2	91.0	Aug.....	63.0	62.1	Feb.....	47.5	40.0
Mar.....	97.1	92.8	Sept.....	63.4	63.0	Mar.....	47.3	40.3
Apr.....	102.0	96.0	Oct.....	68.9	65.5	Apr.....	51.3	45.0
May.....	100.4	95.3	Nov.....	69.2	69.4	May.....	53.3	48.2
June.....	98.9	94.3	Dec.....	71.7	69.5	June.....	54.4	51.2
July.....	97.8	93.9				July.....	54.8	48.8
Aug.....	96.5	93.6	1888.			Aug.....	53.0	42.7
Sept.....	96.0	94.4	Jan.....	74.3	69.6	Sept.....	53.0	43.7
Oct.....	95.8	93.7	Feb.....	70.9	64.5	Oct.....	53.0	46.1
Nov.....	83.5	93.4	Mar.....	70.4	63.6	Nov.....	46.6	37.1
Dec.....	91.0	89.9	Apr.....	70.4	64.3	Dec.....	43.9	34.2
			May.....	70.4	64.1			
1883.			June.....	71.0	64.3	1894.		
Jan.....	90.1	90.1	July.....	79.5	68.9	Jan.....	40.9	33.7
Feb.....	92.2	89.2	Aug.....	78.8	73.0	Feb.....	42.7	37.9
Mar.....	92.4	90.6	Sept.....	79.9	75.9	Mar.....	43.0	36.8
Apr.....	90.9	89.3	Oct.....	78.1	72.4	Apr.....	41.5	33.3
May.....	91.9	91.4	Nov.....	75.6	73.0	May.....	40.9	33.0
June.....	92.4	89.4	Dec.....	75.6	72.5	June.....	40.7	35.6
July.....	92.3	89.2				July.....	44.6	36.3
Aug.....	90.3	88.4	1889.			Aug.....	44.6	40.8
Sept.....	90.9	88.5	Jan.....	73.5	66.1	Sept.....	48.8	44.0
Oct.....	89.6	89.9	Feb.....	73.0	65.1	Oct.....	45.5	42.8
Nov.....	84.6	88.1	Mar.....	75.7	71.5	Nov.....	42.1	41.1
Dec.....	82.8	82.6	Apr.....	87.7	86.3	Dec.....	39.6	38.7
			May.....	89.2	85.5			
1884.			June.....	94.9	93.9	1895.		
Jan.....	81.5	79.2	July.....	94.5	92.8	Jan.....	39.0	35.3
Feb.....	79.2	78.8	Aug.....	86.6	80.8	Feb.....	38.7	35.9
Mar.....	76.1	75.3	Sept.....	83.4	74.6	Mar.....	39.8	35.1
Apr.....	72.7	73.3	Oct.....	75.5	70.7	Apr.....	40.3	35.1
May.....	75.0	71.5	Nov.....	71.9	67.1	May.....	43.9	38.5
June.....	69.4	66.7	Dec.....	70.4	70.2	June.....	45.4	39.3
July.....	70.4	69.1				July.....	45.4	38.2
Aug.....	68.7	66.4	1890.			Aug.....	44.9	38.5
Sept.....	67.6	65.1	Jan.....	67.5	66.5	Sept.....	44.1	38.4
Oct.....	66.7	65.6	Feb.....	65.8	65.8	Oct.....	46.5	41.8
Nov.....	64.1	66.6	Mar.....	65.3	64.3	Nov.....	44.1	39.7
Dec.....	61.7	62.4	Apr.....	64.0	64.1	Dec.....	46.1	41.4
			May.....	64.0	63.6			
1885.			June.....	67.1	63.7	1896.		
Jan.....	64.3	64.2	July.....	64.9	63.6	Jan.....	48.5	44.4
Feb.....	64.2	64.9	Aug.....	64.1	65.6	Feb.....	48.7	47.1
Mar.....	62.6	62.7	Sept.....	68.8	70.0	Mar.....	49.9	48.6
Apr.....	63.2	62.9	Oct.....	68.8	69.8	Apr.....	53.1	50.0
May.....	69.8	68.9	Nov.....	64.5	64.3	May.....	52.1	48.2
June.....	70.3	72.1	Dec.....	63.1	61.8	June.....	48.6	42.9

RELATIVE MONTHLY PRICES OF GRANULATED SUGAR AND THE MATERIAL ENTERING INTO ITS MANUFACTURE AT NEW YORK, 1880 TO 1899—Concluded.

Year and month.	Product—granulated sugar.	Material—sugar 96° centrifugal.	Year and month.	Product—granulated sugar.	Material—sugar 96° centrifugal.	Year and month.	Product—granulated sugar.	Material—sugar 96° centrifugal.
1886.			1887.			1888.		
July	46.4	39.6	Sept	50.1	45.3	Nov.	50.9	51.3
Aug.	47.3	39.8	Oct.	50.3	44.9	Dec.	50.5	51.6
Sept.	46.6	36.7	Nov.	49.2	44.9	1889.		
Oct.	41.6	35.8	Dec.	50.5	47.2	Jan.	49.1	50.1
Nov.	42.8	38.6	1890.			Feb.	49.2	50.6
Dec.	42.8	37.8	Jan.	51.5	48.3	Mar.	50.2	51.4
1897.			Feb.	51.6	48.5	Apr.	51.4	52.5
Jan.	42.3	37.2	Mar.	50.7	47.9	May.	53.0	54.6
Feb.	42.5	37.6	Apr.	52.1	48.6	June	54.1	54.1
Mar.	43.2	38.0	May.	53.2	49.5	July	54.3	52.1
Apr.	45.2	38.7	June	53.0	50.1	Aug.	55.4	52.9
May.	44.4	38.4	July	53.0	48.2	Sept.	55.8	51.2
June	46.0	40.4	Aug.	53.0	49.5	Oct.	50.0	50.4
July	48.0	42.1	Sept.	53.9	50.9	Nov.	50.0	49.9
Aug.	49.2	43.9	Oct.	49.4	49.6	Dec.	50.0	49.7

If one notices the course of prices from 1880 to 1887 of both the refined sugar and the raw, it will be noted that the difference between these prices—the margin—while fluctuating a good deal had a decided tendency downward, this margin being least toward the close of 1885 and the beginning of 1886, but decidedly lower in 1885, 1886, and 1887 than in the years preceding. Competition was very severe. Immediately after the formation of the trust this margin increased from a little over one-half a cent per pound, speaking generally, to as much as a cent and a quarter. With almost daily fluctuations of small amounts the margin remained about the same for nearly two years. At that time it fell back to about what it had been before the organization of the trust. At the time of the lessening of the margin active competition had begun against the trust on the part of the Spreckles refineries and others, especially in the neighborhood of Philadelphia. This margin remained low until the beginning of 1892, when the competing refineries were bought by the combination. Immediately afterwards the margin was again increased to over a cent a pound, and it remained at an average of more than a cent a pound for considerably over two years. There was a decided lowering in the margin for two or three months in several instances, and the margin seems gradually to have decreased slightly for the entire period until 1898, the general presumption being that this decrease in the margin may have been due in part to improvements in methods of refining, possibly in part to fear of more vigorous competition. There was, however, no decided further fall in the margin lasting for any length of time until the latter part of 1898, when active competition sprung up again, especially on the part of the Arbuckle and Doscher refineries. The margin again immediately dropped back to the neighborhood of 50 cents per hundred pounds—sometimes being decidedly below, sometimes somewhat above—and has remained low from the beginning of this active

competition until the present time. The comparison thus of these prices, running over this whole period, would seem to show that during the periods of active competition the margin is very decidedly lower than during the periods when the trust has much less active competition and is largely in control of the market.

A careful study of the absolute prices given, as well as of the relative prices, shows a very marked immediate lessening of the price of both the raw material and the finished product in April, 1891, although there is no very marked change in the margin at that time. This fall in price was due to the fact that the duty was reduced about 2 cents per pound.

It is perhaps fair to say that sugar refiners themselves insist that before the organization of the trust competition had been so vigorous that there was no profit in the business for most refiners and that a large proportion, some 16 out of 40, of the refiners in the country had failed. The testimony both of refiners connected with the combination and those opposed to it is that at the present time, with the margin held low, there is practically no profit in refining. The advantages and disadvantages of a lower margin do not concern us here. The figures seem to show that unless there are other factors entering into the problem beyond those which appear, and the refiners themselves seem to concede that no others are worthy of serious consideration, the effect of this combination has been, as stated, to raise prices above competitors' rates. It is just, however, to state still further that some of the refiners and those not connected with the trusts argue that if the trust had not been formed so many more refineries would probably have been forced into bankruptcy under the vigorous competition that a shortage in the supply would have resulted in putting prices even higher than they were put by the combination. Of course these statistics have nothing to do with what might have been, even though it is just to call attention to the industrial condition of the times. Attention should again be called to the statement, made earlier, that in order to secure the same profits the margin between raw and refined sugar should be slightly greater when the price of raw sugar is high, inasmuch as the loss of weight is a more expensive waste.

WHITE LEAD.—The tables following show the average annual prices per pound of white lead ground in oil and of the materials used in its manufacture, pig lead per pound and linseed oil per gallon, and relative prices for the same. Of course the pig lead forms by all odds the greater part of the product, so that the variations in the price of lead would have more influence than those in the price of oil. If one keeps this in mind, neglecting the other materials and labor, the variations in prices of these two factors may be perhaps enough to give some basis for judgment.

YEARLY PRICES OF WHITE LEAD AND THE MATERIALS ENTERING INTO ITS MANUFACTURE, 1882 TO 1899.

[The prices shown are from authoritative market quotations and the books of the combination itself. The combination manufacturing a large quantity of this product was organized in December, 1891.]

Year.	Product—white lead ground in oil, per pound.	Materials.		Year.	Product—white lead ground in oil, per pound.	Materials.	
		Pig lead at New York, per pound.	Linseed oil at New York, per gallon.			Pig lead at New York, per pound.	Linseed oil at New York, per gallon.
1882	\$0.07½	\$0.0490	\$0.5414	1891	\$0.06½	\$0.0433	\$0.4688
1883	.07	.0432	.5475	1892	.06½	.0408	.4128
1884	.06½	.0373	.5340	1893	.06½	.0361	.4593
1885	.06½	.0396	.4933	1894	.06½	.0318	.5317
1886	.07½	.0468	.4250	1895	.06½	.0314	.5146
1887	.06½	.0447	.4529	1896	.05½	.0292	.5632
1888	.06½	.0441	.5550	1897	.06½	.0347	.5410
1889	.06½	.0380	.5925	1898	.06½	.0377	.4062
1890	.06½	.0433	.6141	1899	(a)	(a)	.4364

a Not reported.

RELATIVE YEARLY PRICES OF WHITE LEAD AND THE MATERIALS ENTERING INTO ITS MANUFACTURE, 1882 TO 1899.

[The combination manufacturing a large quantity of this product was organized in December, 1891.]

Year.	Product—white lead ground in oil.	Materials.		Year.	Product—white lead ground in oil.	Materials.	
		Pig lead at New York.	Linseed oil at New York.			Pig lead at New York.	Linseed oil at New York.
1882	100.0	100.0	100.0	1891	91.4	88.4	86.6
1883	96.6	88.2	101.1	1892	93.1	82.2	76.2
1884	86.2	76.1	96.6	1893	89.7	73.7	84.8
1885	87.9	80.6	91.1	1894	79.3	64.9	98.2
1886	100.0	94.5	78.5	1895	76.7	64.1	95.0
1887	94.8	91.2	83.7	1896	72.4	59.6	67.1
1888	91.4	90.0	102.5	1897	75.6	70.8	63.0
1889	94.8	77.6	109.4	1898	77.0	76.9	75.0
1890	91.4	88.4	113.4	1899	(a)	(a)	80.6

a Not reported.

If one studies these prices it will appear that for the years 1892 and 1893, immediately following the organization of the white-lead combination, the margin was decidedly greater than for several years preceding, with the exception of the year 1889. On the other hand, the margin after 1893 lessened, and during the years 1897 and 1898 was lower than during any of the preceding years shown in the table. So far as this raw material represented in the tables is to be considered the basis for fixing the price of the finished product, it would seem therefore that the combination, provided other conditions had not materially changed, was able to put the margin and, in consequence, its profits very decidedly higher during the first two years of its existence, but that since that time it has not been able to hold the margin higher. Its profits, if they have been kept above those which would hold during a period of competition, must come either from economies in manufacture, which do not appear at all in the tables, or from variations in other factors which are not represented here. Regarding those facts it must be left for experts in that line of manufacture to judge.

PETROLEUM.—The tables giving the prices of petroleum show first the price per gallon of petroleum refined for export, the price per gallon of the crude oil used as raw material, and the difference between the refined and the crude oil per gallon for each month of the years 1866 to 1899. In the prices for refined oil is included that of the barrel in which it is ordinarily sold; the prices of the crude oil represent prices per gallon without including the package. Prices of crude oil, when quoted by the barrel, ordinarily exclude the package, those of refined oil include it, so that these tables are made up in accordance with the usual custom of quotation, but in both cases are reduced to gallons. The margin between the price of the crude and the refined shown in the table represents the price of the barrel plus the cost of refining and the profit. It should be borne in mind that the export oil is not of quite so high a grade as the standard oil used for consumption in the United States, as represented in the tables showing prices of standard white illuminating oil at Chicago, Cincinnati, and New York. The table of monthly prices is followed by the table of relative prices.

MONTHLY PRICES OF REFINED EXPORT OIL AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1866 TO 1899.

[The prices shown are from the Report of the Industrial Commission on Trusts and Industrial Combinations, Part I, pp. 48, 49, and 50. The package is included in the price for refined oil, but is not included in the price for crude oil. The combination controlling 82.3 per cent of this product was organized in 1882.]

Year and month.	Product—refined export oil at New York, per gallon.	Material—crude oil at Oil City, per gallon.	Difference.	Year and month.	Product—refined export oil at New York, per gallon.	Material—crude oil at Oil City, per gallon.	Difference.
1866.				1868.			
January	\$0. 5787	\$0. 1190	\$0. 4597	July	\$0. 3425	\$0. 1209	\$0. 2216
February	.4862	.1047	.3815	August	.3300	.1030	.2270
March	.4087	.0893	.3194	September ..	.3100	.0928	.2172
April	.4012	.0940	.3072	October	.3000	.0982	.2018
May	.4300	.1100	.3200	November	.3087	.0882	.2205
June	.4187	.0833	.3354	December	.3275	.1012	.2263
July	.3950	.0714	.3236	1869.			
August	.4437	.0893	.3544	January	.3412	.1369	.2043
September ..	.4462	.1072	.3390	February	.3637	.1560	.2077
October	.4062	.0808	.3254	March	.3212	.1428	.1784
November	.3575	.0738	.2837	April	.3225	.1357	.1868
December	.3125	.0464	.2661	May	.3150	.1273	.1877
1867.				June	.3100	.1190	.1910
January	.3100	.0446	.2654	July	.3225	.1280	.1945
February	.2825	.0441	.2384	August	.3250	.1310	.1940
March	.2750	.0417	.2333	September ..	.3225	.1310	.1915
April	.2700	.0464	.2236	October	.3287	.1322	.1965
May	.2675	.0559	.2116	November	.3400	.1381	.2019
June	.2475	.0452	.2023	December	.3112	.1219	.1893
July	.3087	.0625	.2462	1870.			
August	.2925	.0750	.2175	January	.3137	.1078	.2059
September ..	.3175	.0808	.2367	February	.2967	.1101	.1866
October	.3450	.0868	.2582	March	.2700	.1024	.1676
November	.2750	.0607	.2143	April	.2650	.1012	.1638
December	.2475	.0446	.2029	May	.2750	.1078	.1672
1868.				June	.2700	.1012	.1688
January	.2475	.0464	.2011	July	.2600	.0906	.1696
February	.2500	.0536	.1964	August	.2500	.0755	.1745
March	.2575	.0619	.1956	September ..	.2612	.0827	.1785
April	.2625	.0702	.1923	October	.2487	.0768	.1699
May	.2962	.0875	.2087	November	.2300	.0779	.1521
June	.3187	.1080	.2107	December	.2300	.0809	.1491

MONTHLY PRICES OF REFINED EXPORT OIL AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1866 TO 1899—Continued.

Year and month.	Product— refined ex- port oil at New York, per gallon.	Material— crude oil at Oil City, per gallon.	Difference.	Year and month.	Product— refined ex- port oil at New York, per gallon.	Material— crude oil at Oil City, per gallon.	Difference.
1871.				1876.			
January	\$0.2462	\$0.0962	\$0.1510	July	\$0.1687	\$0.0545	\$0.1142
February	.2512	.1073	.1439	August	.1987	.0654	.1333
March	.2412	.1012	.1400	September	.2600	.0906	.1694
April	.2325	.0941	.1384	October	.2600	.0786	.1814
May	.2462	.1089	.1373	November	.2625	.0792	.1833
June	.2575	.1095	.1480	December	.2937	.0901	.2036
July	.2575	.1143	.1432				
August	.2437	.1053	.1384	1877.			
September	.2412	.1063	.1329	January	.2400	.0840	.1560
October	.2375	.1118	.1257	February	.1862	.0638	.1224
November	.2237	.0976	.1261	March	.1600	.0637	.0963
December	.2300	.1035	.1265	April	.1575	.0618	.0957
1872.				May	.1450	.0533	.0917
January	.2237	.0958	.1279	June	.1375	.0464	.0911
February	.2175	.0887	.1288	July	.1337	.0525	.0812
March	.2262	.0857	.1405	August	.1362	.0588	.0774
April	.2175	.0840	.1335	September	.1450	.0568	.0882
May	.2337	.0928	.1409	October	.1462	.0534	.0928
June	.2300	.0943	.1357	November	.1325	.0456	.0869
July	.2237	.0875	.1362	December	.1312	.0430	.0882
August	.2237	.0827	.1410				
September	.2412	.0750	.1662	1878.			
October	.2500	.0994	.1606	January	.1212	.0344	.0868
November	.2700	.1035	.1665	February	.1225	.0395	.0830
December	.2600	.0783	.1817	March	.1162	.0379	.0783
1873.				April	.1137	.0326	.0811
January	.2212	.0565	.1647	May	.1125	.0322	.0803
February	.1962	.0324	.1438	June	.1125	.0271	.0854
March	.1900	.0500	.1400	July	.1075	.0235	.0840
April	.2000	.0583	.1417	August	.1087	.0240	.0847
May	.1975	.0595	.1380	September	.1025	.0206	.0819
June	.1900	.0518	.1382	October	.0962	.0196	.0766
July	.1812	.0431	.1381	November	.0912	.0214	.0698
August	.1650	.0319	.1331	December	.0962	.0228	.0734
September	.1650	.0304	.1346				
October	.1625	.0295	.1380	1879.			
November	.1412	.0256	.1156	January	.0900	.0245	.0655
December	.1350	.0232	.1118	February	.0937	.0233	.0704
1874.				March	.0925	.0206	.0720
January	.1350	.0316	.1034	April	.0912	.0187	.0725
February	.1500	.0452	.1048	May	.0850	.0180	.0670
March	.1487	.0428	.1069	June	.0750	.0164	.0586
April	.1562	.0466	.1096	July	.0675	.0166	.0509
May	.1387	.0274	.1113	August	.0662	.0160	.0502
June	.1287	.0282	.1005	September	.0687	.0165	.0522
July	.1212	.0240	.0972	October	.0750	.0210	.0540
August	.1175	.0238	.0937	November	.0800	.0251	.0549
September	.1212	.0232	.0980	December	.0862	.0282	.0580
October	.1175	.0208	.0967				
November	.1075	.0173	.0902	1880.			
December	.1125	.0208	.0917	January	.0787	.0263	.0524
1875.				February	.0787	.0246	.0541
January	.1237	.0256	.0981	March	.0775	.0213	.0562
February	.1400	.0360	.1040	April	.0762	.0183	.0579
March	.1500	.0388	.1112	May	.0762	.0191	.0571
April	.1387	.0332	.1055	June	.0962	.0239	.0723
May	.1287	.0278	.1009	July	.0987	.0241	.0746
June	.1262	.0267	.0995	August	.0900	.0216	.0684
July	.1150	.0205	.0945	September	.1062	.0228	.0834
August	.1125	.0217	.0908	October	.1200	.0231	.0969
September	.1275	.0310	.0965	November	.1050	.0218	.0832
October	.1412	.0322	.1090	December	.0950	.0221	.0729
November	.1300	.0318	.0982				
December	.1275	.0332	.0943	1881.			
1876.				January	.0925	.0227	.0698
January	.1412	.0425	.0987	February	.0925	.0214	.0711
February	.1425	.0479	.0946	March	.0850	.0198	.0652
March	.1450	.0493	.0957	April	.0775	.0201	.0574
April	.1400	.0453	.0947	May	.0800	.0196	.0605
May	.1412	.0454	.0958	June	.0812	.0194	.0618
June	.1475	.0484	.0991	July	.0787	.0183	.0604
				August	.0775	.0188	.0587
				September	.0800	.0220	.0580
				October	.0775	.0221	.0554
				November	.0750	.0197	.0563
				December	.0712	.0200	.0512

MONTHLY PRICES OF REFINED EXPORT OIL AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1866 TO 1899—Continued.

Year and month.	Product— refined export oil at New York, per gallon.	Material— crude oil at Oil City, per gallon.	Difference.	Year and month.	Product— refined export oil at New York, per gallon.	Material— crude oil at Oil City, per gallon.	Difference.
1882.				1887.			
January	\$0.0700	\$0.0198	\$0.0502	July	\$0.0650	\$0.0141	\$0.0509
February	.0737	.0203	.0534	August	.0650	.0143	.0507
March	.0737	.0198	.0544	September	.0675	.0160	.0515
April	.0737	.0187	.0550	October	.0675	.0168	.0507
May	.0750	.0167	.0583	November	.0700	.0176	.0524
June	.0750	.0130	.0620	December	.0725	.0190	.0535
July	.0675	.0137	.0538				
August	.0687	.0140	.0547	1888.			
September	.0750	.0169	.0581	January	.0775	.0217	.0558
October	.0800	.0223	.0577	February	.0775	.0214	.0561
November	.0825	.0273	.0552	March	.0775	.0223	.0552
December	.0762	.0228	.0534	April	.0737	.0193	.0544
				May	.0750	.0207	.0543
1883.				June	.0712	.0181	.0531
January	.0775	.0220	.0555	July	.0725	.0192	.0533
February	.0787	.0241	.0546	August	.0762	.0206	.0556
March	.0800	.0232	.0568	September	.0775	.0223	.0552
April	.0825	.0221	.0604	October	.0762	.0216	.0546
May	.0787	.0236	.0551	November	.0725	.0204	.0521
June	.0800	.0279	.0521	December	.0725	.0212	.0513
July	.0762	.0257	.0505				
August	.0787	.0259	.0528	1889.			
September	.0812	.0268	.0544	January	.0700	.0205	.0495
October	.0837	.0265	.0572	February	.0712	.0212	.0500
November	.0875	.0273	.0602	March	.0700	.0216	.0484
December	.0912	.0272	.0640	April	.0687	.0209	.0478
				May	.0687	.0198	.0489
1884.				June	.0687	.0203	.0484
January	.0937	.0265	.0672	July	.0725	.0226	.0499
February	.0912	.0250	.0662	August	.0725	.0204	.0521
March	.0850	.0239	.0611	September	.0712	.0205	.0507
April	.0862	.0234	.0628	October	.0712	.0241	.0471
May	.0850	.0204	.0646	November	.0750	.0258	.0492
June	.0812	.0164	.0648	December	.0750	.0248	.0502
July	.0787	.0151	.0636				
August	.0800	.0193	.0607	1890.			
September	.0787	.0186	.0601	January	.0750	.0250	.0500
October	.0787	.0169	.0618	February	.0750	.0250	.0500
November	.0787	.0173	.0614	March	.0725	.0213	.0512
December	.0775	.0177	.0598	April	.0712	.0197	.0515
				May	.0725	.0211	.0514
1885.				June	.0712	.0212	.0500
January	.0775	.0169	.0606	July	.0712	.0212	.0500
February	.0775	.0174	.0601	August	.0725	.0212	.0513
March	.0800	.0191	.0609	September	.0737	.0195	.0542
April	.0787	.0188	.0599	October	.0750	.0191	.0559
May	.0775	.0189	.0586	November	.0950	.0172	.0578
June	.0800	.0196	.0604	December	.0725	.0160	.0565
July	.0825	.0230	.0596				
August	.0837	.0239	.0598	1891.			
September	.0837	.0240	.0597	January	.0742	.0176	.0566
October	.0850	.0251	.0599	February	.0748	.0185	.0563
November	.0850	.0248	.0602	March	.0731	.0177	.0554
December	.0800	.0213	.0587	April	.0718	.0169	.0549
				May	.0720	.0166	.0554
1886.				June	.0713	.0162	.0551
January	.0775	.0210	.0565	July	.0702	.0158	.0544
February	.0762	.0191	.0571	August	.0670	.0152	.0518
March	.0737	.0184	.0553	September	.0642	.0139	.0503
April	.0737	.0176	.0561	October	.0645	.0144	.0501
May	.0725	.0166	.0559	November	.0640	.0141	.0499
June	.0712	.0160	.0562	December	.0644	.0141	.0503
July	.0700	.0167	.0543				
August	.0675	.0148	.0527	1892.			
September	.0662	.0151	.0511	January	.0645	.0149	.0496
October	.0675	.0155	.0520	February	.0642	.0143	.0499
November	.0687	.0172	.0515	March	.0632	.0137	.0495
December	.0687	.0169	.0518	April	.0610	.0138	.0472
				May	.0606	.0135	.0471
1887.				June	.0600	.0129	.0471
January	.0675	.0169	.0506	July	.0600	.0125	.0475
February	.0662	.0151	.0511	August	.0608	.0131	.0477
March	.0662	.0151	.0511	September	.0610	.0129	.0481
April	.0662	.0154	.0508	October	.0608	.0122	.0481
May	.0675	.0153	.0522	November	.0580	.0123	.0487
June	.0662	.0149	.0513	December	.0645	.0127	.0418

MONTHLY PRICES OF REFINED EXPORT OIL AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1866 TO 1899—Concluded.

Year and month.	Product—refined export oil at New York, per gallon.	Material—crude oil at Oil City, per gallon.	Difference.	Year and month.	Product—refined export oil at New York, per gallon.	Material—crude oil at Oil City, per gallon.	Difference.
1893.				1896.			
January.....	\$0.0533	\$0.0127	\$0.0406	July.....	\$0.0655	\$0.0260	\$0.0395
February.....	.0530	.0137	.0393	August.....	.0665	.0250	.0415
March.....	.0534	.0155	.0379	September.....	.0685	.0268	.0417
April.....	.0562	.0163	.0389	October.....	.0690	.0274	.0416
May.....	.0520	.0140	.0380	November.....	.0715	.0275	.0440
June.....	.0521	.0144	.0377	December.....	.0635	.0233	.0402
July.....	.0515	.0137	.0378	1897.			
August.....	.0518	.0140	.0378	January.....	.0613	.0210	.0403
September.....	.0515	.0154	.0361	February.....	.0626	.0215	.0411
October.....	.0515	.0168	.0347	March.....	.0636	.0219	.0417
November.....	.0515	.0176	.0339	April.....	.0613	.0205	.0408
December.....	.0515	.0187	.0328	May.....	.0623	.0206	.0417
1894.				June.....	.0614	.0205	.0409
January.....	.0515	.0190	.0325	July.....	.0587	.0185	.0402
February.....	.0515	.0191	.0324	August.....	.0575	.0169	.0406
March.....	.0515	.0195	.0320	September.....	.0574	.0166	.0408
April.....	.0515	.0201	.0314	October.....	.0555	.0161	.0394
May.....	.0515	.0205	.0310	November.....	.0540	.0155	.0385
June.....	.0515	.0210	.0305	December.....	.0540	.0155	.0385
July.....	.0515	.0198	.0317	1898.			
August.....	.0515	.0193	.0322	January.....	.0540	.0150	.0390
September.....	.0515	.0198	.0317	February.....	.0550	.0161	.0389
October.....	.0515	.0197	.0318	March.....	.0582	.0187	.0395
November.....	.0515	.0197	.0318	April.....	.0567	.0176	.0391
December.....	.0561	.0217	.0344	May.....	.0601	.0196	.0406
1895.				June.....	.0616	.0207	.0409
January.....	.0587	.0235	.0352	July.....	.0626	.0222	.0404
February.....	.0600	.0242	.0358	August.....	.0644	.0232	.0412
March.....	.0675	.0255	.0420	September.....	.0663	.0242	.0421
April.....	.0912	.0422	.0490	October.....	.0721	.0269	.0452
May.....	.0820	.0388	.0432	November.....	.0735	.0277	.0458
June.....	.0783	.0359	.0424	December.....	.0742	.0279	.0463
July.....	.0765	.0345	.0420	1899.			
August.....	.0710	.0298	.0412	January.....	.0743	.0278	.0465
September.....	.0710	.0298	.0412	February.....	.0740	.0274	.0466
October.....	.0710	.0298	.0412	March.....	.0734	.0269	.0465
November.....	.0788	.0341	.0447	April.....	.0705	.0269	.0436
December.....	.0777	.0342	.0435	May.....	.0699	.0269	.0430
1896.				June.....	.0720	.0270	.0450
January.....	.0785	.0347	.0438	July.....	.0761	.0292	.0469
February.....	.0735	.0331	.0404	August.....	.0782	.0304	.0478
March.....	.0740	.0318	.0422	September.....	.0663	.0344	.0519
April.....	.0700	.0292	.0408	October.....	.0900	.0360	.0540
May.....	.0675	.0282	.0393	November.....	.0940	.0375	.0565
June.....	.0685	.0273	.0412	December.....	.0985	.0413	.0572

RELATIVE MONTHLY PRICES OF REFINED EXPORT OIL AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1866 TO 1899.

[The combination controlling 82.3 per cent of this product was organized in 1882.]

Year and month.	Product—refined export oil.	Material—crude oil.	Year and month.	Product—refined export oil.	Material—crude oil.	Year and month.	Product—refined export oil.	Material—crude oil.
1866.			1867.			1868.		
Jan.....	100.0	100.0	Jan.....	53.6	37.5	Jan.....	42.8	39.0
Feb.....	84.0	88.0	Feb.....	48.8	37.1	Feb.....	43.2	45.0
Mar.....	70.6	75.0	Mar.....	47.5	35.0	Mar.....	44.5	52.0
Apr.....	69.3	79.0	Apr.....	46.7	39.0	Apr.....	45.4	59.0
May.....	74.3	92.4	May.....	46.2	47.0	May.....	51.2	73.5
June.....	72.4	70.0	June.....	42.8	38.0	June.....	54.2	86.6
July.....	68.3	60.0	July.....	53.3	52.5	July.....	59.2	101.6
Aug.....	76.7	75.0	Aug.....	50.5	63.0	Aug.....	57.0	86.6
Sept.....	77.1	90.1	Sept.....	54.9	67.9	Sept.....	53.6	78.0
Oct.....	70.2	67.9	Oct.....	59.6	72.9	Oct.....	51.8	82.5
Nov.....	61.8	62.0	Nov.....	47.5	51.0	Nov.....	53.3	74.1
Dec.....	54.0	39.0	Dec.....	42.8	37.5	Dec.....	56.6	85.0

RELATIVE MONTHLY PRICES OF REFINED EXPORT OIL AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1866 TO 1899—Continued.

Year and month.	Product—refined export oil.	Material—crude oil.	Year and month.	Product—refined export oil.	Material—crude oil.	Year and month.	Product—refined export oil.	Material—crude oil.
1869.			1875.			1881.		
Jan	59.0	115.0	Jan	21.4	21.5	Jan	16.0	19.1
Feb	62.8	131.1	Feb	24.2	30.3	Feb	16.1	18.0
Mar	55.5	120.0	Mar	25.9	32.6	Mar	14.7	16.6
Apr	55.7	114.0	Apr	24.0	27.9	Apr	13.4	16.9
May	54.4	107.0	May	22.2	23.4	May	13.8	16.4
June	53.6	100.0	June	21.8	22.4	June	14.0	16.3
July	55.7	107.6	July	19.9	17.2	July	13.6	15.4
Aug	56.2	110.1	Aug	19.4	18.2	Aug	13.4	15.8
Sept	55.7	110.1	Sept	22.0	26.1	Sept	13.8	18.5
Oct	56.8	111.1	Oct	24.4	27.1	Oct	13.4	18.6
Nov	58.8	116.1	Nov	22.5	26.7	Nov	13.0	16.6
Dec	53.8	102.4	Dec	22.0	27.9	Dec	12.3	16.8
1870.			1876.			1882.		
Jan	54.2	90.6	Jan	24.4	35.7	Jan	12.1	16.6
Feb	51.6	92.5	Feb	24.6	40.3	Feb	12.7	17.1
Mar	46.7	86.1	Mar	25.1	41.4	Mar	12.7	16.2
Apr	45.8	85.0	Apr	24.2	38.1	Apr	12.7	15.7
May	47.5	90.6	May	24.4	38.2	May	13.0	14.0
June	46.7	85.0	June	25.5	40.7	June	13.0	10.9
July	44.9	76.1	July	29.2	45.8	July	11.7	11.5
Aug	43.2	63.4	Aug	34.3	55.0	Aug	11.9	11.8
Sept	45.1	69.5	Sept	44.9	76.1	Sept	13.0	14.2
Oct	42.1	64.5	Oct	44.9	66.1	Oct	13.8	18.7
Nov	39.7	65.5	Nov	45.4	66.6	Nov	14.3	22.9
Dec	39.7	68.0	Dec	50.8	75.7	Dec	13.2	19.2
1871.			1877.			1883.		
Jan	42.5	80.0	Jan	41.5	70.6	Jan	13.4	18.5
Feb	43.4	90.2	Feb	32.2	53.6	Feb	13.6	20.3
Mar	41.7	85.0	Mar	27.6	58.5	Mar	13.8	19.5
Apr	40.2	79.1	Apr	27.2	51.9	Apr	14.3	18.6
May	42.5	91.5	May	25.1	44.8	May	13.6	19.8
June	44.5	92.0	June	23.8	39.0	June	13.8	23.4
July	44.5	96.1	July	23.1	44.1	July	13.2	21.6
Aug	42.1	88.5	Aug	23.5	49.4	Aug	13.6	21.8
Sept	41.7	91.0	Sept	25.1	47.7	Sept	14.0	22.5
Oct	41.0	93.9	Oct	25.3	44.9	Oct	14.5	22.3
Nov	38.7	82.0	Nov	22.9	38.3	Nov	15.1	22.9
Dec	39.7	87.0	Dec	22.7	36.1	Dec	15.8	22.9
1872.			1878.			1884.		
Jan	38.7	80.5	Jan	20.9	28.9	Jan	16.2	22.3
Feb	37.6	74.5	Feb	21.2	33.2	Feb	15.8	21.0
Mar	39.1	72.0	Mar	20.1	31.8	Mar	14.7	20.1
Apr	37.6	70.6	Apr	19.6	27.4	Apr	14.9	19.7
May	40.4	78.0	May	19.4	27.1	May	14.7	17.1
June	39.7	79.2	June	19.4	22.8	June	14.0	13.8
July	38.7	73.5	July	18.6	19.7	July	13.6	12.7
Aug	38.7	69.5	Aug	18.8	20.2	Aug	13.8	16.2
Sept	41.7	63.0	Sept	17.7	17.3	Sept	13.6	15.6
Oct	44.9	83.5	Oct	16.6	16.5	Oct	13.6	14.2
Nov	46.7	87.0	Nov	15.8	18.0	Nov	13.6	14.5
Dec	44.9	65.8	Dec	16.6	19.2	Dec	13.4	14.9
1873.			1879.			1885.		
Jan	38.2	47.5	Jan	15.6	20.6	Jan	13.4	14.2
Feb	33.9	44.0	Feb	16.2	19.6	Feb	13.4	14.6
Mar	32.8	42.0	Mar	16.0	17.2	Mar	13.8	16.1
Apr	34.6	49.0	Apr	15.8	15.7	Apr	13.6	15.8
May	34.1	50.0	May	14.7	15.1	May	13.4	15.9
June	32.8	43.5	June	13.0	13.8	June	13.8	16.5
July	31.3	36.2	July	11.7	13.9	July	14.3	19.3
Aug	28.5	26.8	Aug	11.4	13.4	Aug	14.5	20.1
Sept	28.5	25.5	Sept	11.9	13.9	Sept	14.5	20.2
Oct	28.1	24.8	Oct	13.0	17.6	Oct	14.7	21.1
Nov	24.4	21.5	Nov	13.8	21.1	Nov	14.7	20.8
Dec	23.3	19.5	Dec	14.9	23.7	Dec	13.8	17.9
1874.			1880.			1886.		
Jan	23.3	26.6	Jan	13.6	22.1	Jan	13.4	17.6
Feb	25.9	38.0	Feb	13.6	20.7	Feb	13.2	16.1
Mar	25.7	36.0	Mar	13.4	17.9	Mar	12.7	15.5
Apr	27.0	39.2	Apr	13.2	15.4	Apr	12.7	14.8
May	24.0	23.0	May	13.2	16.1	May	12.5	13.9
June	22.2	23.7	June	16.6	16.1	June	12.3	13.4
July	20.9	20.2	July	17.1	20.3	July	12.1	13.2
Aug	20.3	20.0	Aug	15.6	18.2	Aug	11.7	12.4
Sept	20.9	19.5	Sept	18.4	19.2	Sept	11.4	12.7
Oct	20.3	17.5	Oct	20.7	19.4	Oct	11.7	13.0
Nov	18.6	14.5	Nov	18.1	18.3	Nov	11.9	14.5
Dec	19.4	17.5	Dec	16.1	18.6	Dec	11.9	14.2

MONTHLY PRICES OF PROOF SPIRITS AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1884 TO 1899—Continued.

Year and month	Proof spirits per gal.	Proof spirits less tax per gal.	Proof spirits less tax and rebates per gal.	Proof spirits from one bushel of corn.	Corn per bushel	Proof spirits from one bushel of corn less price of corn.	Year and month	Proof spirits per gal.	Proof spirits less tax per gal.	Proof spirits less tax and rebates per gal.	Proof spirits from one bushel of corn.	Corn per bushel	Proof spirits from one bushel of corn less price of corn.
1886.							1891.						
Jan...	\$1.100	\$0.200	.....	\$0.910	\$0.366	\$0.544	May...	\$1.176	\$0.276	\$0.212	\$0.998	\$0.612	\$0.386
Feb...	1.100	.200	.....	.910	.372	.538	June...	1.170	.270	.206	.970	.581	.389
Mar...	1.100	.200	.....	.910	.371	.539	July...	1.170	.270	.206	.970	.615	.355
Apr...	1.100	.200	.....	.910	.347	.563	Aug...	1.174	.274	.210	.989	.632	.357
May...	1.100	.200	.....	.910	.355	.555	Sept...	1.180	.280	.216	1.018	.584	.434
June...	1.100	.200	.....	.910	.347	.563	Oct...	1.180	.280	.216	1.018	.552	.466
July...	a.1.082	a.182	.....	a.828	a.347	a.561	Nov...	1.180	.280	.216	1.018	.635	.383
Aug...	a.1.098	a.198	.....	a.902	a.420	a.582	Dec...	a.1.180	a.280	a.199	a.927	a.492	a.445
Sept...	1.114	.214	.....	.975	.387	.588	1892.						
Oct...	1.140	.240	.....	1.092	.349	.743	Jan...	1.173	.273	.192	.888	.333	.505
Nov...	1.140	.240	.....	1.092	.362	.730	Feb...	1.142	.242	.161	.745	.405	.340
Dec...	1.140	.240	.....	1.092	.369	.723	Mar...	1.133	.233	.152	.703	.395	.308
1887.							Apr...	a.1.130	a.233	a.152	a.703	a.406	a.297
Jan...	1.140	.240	.....	1.108	.365	.743	May...	1.140	.240	.159	.735	.703	.032
Feb...	a.1.140	a.240	.....	a.1.108	a.347	a.751	June...	1.155	.255	.174	.805	.508	.297
Mar...	1.140	.240	.....	1.108	.365	.743	July...	1.150	.250	.169	.781	.497	.284
Apr...	1.140	.240	.....	1.108	.365	.743	Aug...	1.150	.250	.169	.781	.518	.263
May...	1.064	.164	.....	.758	.379	.379	Sept...	a.1.150	a.150	a.169	a.781	a.462	a.319
June...	1.090	.190	.....	.739	.371	.368	Oct...	1.150	.250	.169	.781	.425	.356
July...	1.050	.150	.....	.693	.365	.328	Nov...	1.150	.250	.169	.781	.415	.366
Aug...	1.050	.150	.....	.693	.402	.291	Dec...	1.256	.356	.275	1.271	.413	.858
Sept...	1.050	.150	.....	.693	.419	.274	1893.						
Oct...	1.050	.150	.....	.693	.417	.276	Jan...	1.331	.431	.350	1.635	.426	1.209
Nov...	1.050	.150	.....	.693	.442	.251	Feb...	a.1.170	a.270	a.189	a.888	a.420	a.468
Dec...	1.050	.150	.....	.693	.488	.205	Mar...	a.1.170	a.270	a.189	a.888	a.408	a.480
1888.							Apr...	1.143	.243	.160	.747	.407	.340
Jan...	1.090	.190	.....	.862	.487	.375	May...	a.1.125	a.225	a.142	a.653	a.420	a.243
Feb...	1.090	.190	.....	.862	.472	.390	June...	1.120	.220	.137	.640	.395	.245
Mar...	1.090	.190	.....	.862	.475	.387	July...	1.120	.220	.137	.640	.389	.251
Apr...	1.090	.190	.....	.862	.519	.343	Aug...	1.120	.220	.137	.640	.382	.258
May...	1.103	.203	.....	.920	.572	.348	Sept...	1.120	.220	.137	.640	.399	.241
June...	1.140	.240	.....	1.088	.512	.576	Oct...	1.135	.235	.152	.710	.390	.320
July...	1.140	.240	.....	1.088	.479	.609	Nov...	1.150	.250	.167	.780	.372	.408
Aug...	1.140	.240	.....	1.088	.453	.635	Dec...	1.150	.250	.167	.780	.354	.426
Sept...	1.140	.240	.....	1.088	.433	.655	1894.						
Oct...	1.140	.240	.....	1.088	.436	.652	Jan...	1.150	.250	.167	.797	.349	.448
Nov...	1.140	.240	.....	1.088	.363	.725	Feb...	1.150	.250	.167	.797	.347	.450
Dec...	1.140	.240	.....	1.088	.347	.741	Mar...	1.150	.250	.167	.797	.357	.440
1889.							Apr...	1.150	.250	.167	.797	.379	.418
Jan...	1.052	.152	.....	.706	.343	.363	May...	1.150	.250	.167	.797	.376	.421
Feb...	1.040	.140	.....	.650	.345	.305	June...	1.154	.254	.171	.817	.399	.418
Mar...	1.040	.140	.....	.650	.345	.305	July...	1.210	.310	.227	1.083	.435	.648
Apr...	1.036	.136	.....	.632	.344	.288	Aug...	a.1.254	a.354	a.271	a.1.298	a.531	a.767
May...	1.030	.130	.....	.604	.345	.259	Sept...	a.1.154	a.254	a.171	a.839	a.419	a.198
June...	1.030	.130	.....	.604	.345	.259	Oct...	1.240	.340	.257	.573	.507	.066
July...	1.030	.130	.....	.604	.360	.244	Nov...	1.230	.330	.257	.573	.500	.025
Aug...	1.030	.130	.....	.604	.347	.257	Dec...	1.228	.328	.257	.573	.461	.055
Sept...	1.030	.130	.....	.604	.322	.282	1895.						
Oct...	1.030	.130	.....	.604	.320	.284	Jan...	1.229	.329	.257	.573	.430	.078
Nov...	1.030	.130	.....	.604	.458	.146	Feb...	1.200	.300	.257	.573	.421	.045
Dec...	1.030	.130	.....	.604	.321	.283	Mar...	1.227	.327	.257	.573	.444	.148
1890.							Apr...	a.1.203	a.303	a.257	a.703	a.469	a.001
Jan...	1.030	.130	.....	.607	.291	.316	May...	a.1.223	a.323	a.257	a.703	a.518	a.057
Feb...	1.030	.130	.....	.607	.277	.330	June...	1.242	.342	.257	.662	.500	.162
Mar...	1.030	.130	.....	.607	.287	.320	July...	1.237	.337	.257	.638	.446	.192
Apr...	1.030	.130	.....	.607	.313	.294	Aug...	1.212	.312	.257	.622	.404	.118
May...	1.053	.153	.....	.715	.339	.376	Sept...	a.1.190	a.290	a.257	a.615	a.339	a.076
June...	1.100	.200	\$0.136	.635	.339	.296	Oct...	a.1.191	a.291	a.257	a.615	a.304	a.115
July...	1.109	.209	.145	.677	.402	.275	Nov...	a.1.195	a.295	a.257	a.615	a.282	a.156
Aug...	1.138	.238	.174	.812	.480	.332	Dec...	a.1.196	a.296	a.257	a.615	a.259	a.179
Sept...	1.142	.242	.178	.831	.507	.324	1896.						
Oct...	1.142	.242	.178	.831	.497	.334	Jan...	1.215	.315	.257	.638	.269	.269
Nov...	1.150	.250	.186	.869	.515	.354	Feb...	a.1.215	a.315	a.257	a.638	a.285	a.243
Dec...	1.150	.250	.186	.869	.504	.365	Mar...	1.215	.315	.257	.638	.286	.252
1891.							Apr...	1.215	.315	.257	.638	.296	.242
Jan...	1.150	.250	.186	.876	.488	.388	May...	1.215	.315	.257	.638	.285	.253
Feb...	1.150	.250	.186	.876	.524	.352	June...	1.215	.315	.257	.638	.274	.264
Mar...	a.1.630	a.263	a.199	a.937	a.620	a.310	July...	1.206	.306	.257	.638	.260	.236
Apr...	1.178	.278	.214	1.008	.709	.299							

a The figures here shown do not appear to harmonize when tested by the method of calculation explained on p. 730; the Department, however, was not able to gain access to the original sources used by the Industrial Commission and was not, therefore, able to make corrections with confidence. Apparent errors of 1 mill have not been noted.

MONTHLY PRICES OF PROOF SPIRITS AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1884 TO 1899—Concluded.

Year and month	Proof spirits per gal.	Proof spirits less tax per gal.	Proof spirits less tax and rebates per gal.	Proof spirits from one bushel of corn.	Corn per bushel	Proof spirits from one bushel of corn less price of corn.	Year and month	Proof spirits per gal.	Proof spirits less tax per gal.	Proof spirits less tax and rebates per gal.	Proof spirits from one bushel of corn.	Corn per bushel	Proof spirits from one bushel of corn less price of corn.
1896.							1896.						
Aug.	\$1.196	\$0.096	.....	\$0.450	\$0.227	\$0.223	Apr.	\$1.197	\$0.097	.....	\$0.466	\$0.321	\$0.145
Sept.	1.192	.092	.....	.431	.209	.222	May	1.219	.119	.....	.571	.347	.224
Oct.	1.185	.085	.....	.398	.244	.154	June	1.224	.124	.....	.595	.324	.271
Nov.	1.185	.085	.....	.398	.241	.157	July	1.242	.142	.....	.682	.336	.346
Dec.	1.185	.085	.....	.398	.231	.167	Aug.	1.242	.142	.....	.682	.317	.365
1897.							Sept.	1.242	.142	.....	.682	.302	.380
Jan.	1.170	.070	.....	.328	.225	.102	Oct.	1.242	.142	.....	.682	.308	.374
Feb.	1.165	.065	.....	.305	.225	.080	Nov.	1.245	.145	.....	.696	.331	.365
Mar.	1.165	.065	.....	.305	.237	.068	Dec.	1.252	.152	.....	.730	.356	.274
Apr.	1.182	.082	.....	.385	.242	.143	1899.						
May	1.187	.087	.....	.408	.242	.166	Jan.	1.247	.147	.....	.689	.367	.322
June	1.187	.087	.....	.408	.244	.164	Feb.	1.240	.140	.....	.656	.352	.304
July	1.187	.087	.....	.408	.264	.144	Mar.	1.240	.140	.....	.656	.346	.310
Aug.	1.192	.092	.....	.432	.294	.138	Apr.	1.240	.140	.....	.656	.347	.309
Sept.	1.203	.103	.....	.483	.296	.187	May	1.240	.140	.....	.656	.334	.322
Oct.	1.187	.087	.....	.408	.265	.143	June	1.240	.140	.....	.656	.344	.312
Nov.	1.184	.084	.....	.394	.267	.127	July	1.240	.140	.....	.656	.329	.327
Dec.	1.182	.082	.....	.385	.262	.123	Aug.	1.240	.140	.....	.656	.317	.339
1898.							Sept.	1.210	.110	.....	.516	.331	.185
Jan.	1.182	.082	.....	.394	.271	.123	Oct.	1.220	.120	.....	.563	.320	.243
Feb.	1.186	.086	.....	.413	.289	.124	Nov.	1.226	.126	.....	.591	.316	.275
Mar.	1.192	.092	.....	.442	.289	.153	Dec.	1.225	.125	.....	.587	.305	.282

RELATIVE MONTHLY PRICES OF PROOF SPIRITS AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1884 TO 1899.

[This table is based on the preceding one; see note a, pp. 726 and 727. The combination controlling a large proportion of this product was organized in 1887; reorganized 1890, 1896, and 1899.]

Year and month.	Proof spirits less tax and rebates.	Corn.	Year and month.	Proof spirits less tax and rebates.	Corn.	Year and month.	Proof spirits less tax and rebates.	Corn.
1884.			1886.			1889.		
January	100.0	100.0	July	70.8	63.8	January	58.7	63.1
February	103.9	98.3	August	76.4	77.2	February	54.1	63.4
March	104.2	96.6	September	82.6	71.1	March	54.1	63.4
April	105.8	92.1	October	92.7	64.2	April	52.5	63.2
May	84.9	100.6	November	92.7	66.5	May	50.2	63.4
June	73.4	99.1	December	92.7	67.8	June	50.2	63.4
July	67.2	97.1	1887.			July	50.2	66.2
August	57.9	97.4	January	92.7	67.1	August	50.2	63.8
September	79.2	127.6	February	92.7	63.8	September	50.2	59.2
October	81.1	92.3	March	92.7	65.6	October	50.2	58.8
November	84.2	73.7	April	92.7	67.1	November	50.2	64.2
December	84.9	68.8	May	63.3	69.7	December	50.2	59.0
1885.			June	61.8	68.2	1890.		
January	85.7	68.4	July	57.9	67.1	January	50.2	53.5
February	92.7	68.4	August	57.9	73.9	February	50.2	50.9
March	92.7	72.1	September	57.9	77.0	March	50.2	52.8
April	92.7	82.2	October	57.9	76.7	April	50.2	57.5
May	92.7	86.0	November	57.9	81.3	May	59.1	62.8
June	92.7	85.7	December	57.9	89.7	June	52.5	62.3
July	92.7	85.7	1888.			July	56.0	73.9
August	92.7	83.1	January	73.4	89.5	August	67.2	88.2
September	57.9	79.0	February	78.4	86.8	September	68.7	98.2
October	57.9	77.6	March	78.4	87.3	October	68.7	91.4
November	73.4	79.4	April	78.4	95.4	November	71.8	94.7
December	75.3	72.8	May	78.4	105.1	December	71.8	92.6
1886.			June	92.7	94.1	1891.		
January	77.2	67.3	July	92.7	88.1	January	71.8	89.7
February	77.2	68.4	August	92.7	88.3	February	71.8	96.8
March	77.2	68.2	September	92.7	79.6	March	76.8	114.0
April	77.2	63.8	October	92.7	80.1	April	52.6	130.3
May	77.2	65.3	November	92.7	66.7	May	81.9	112.8
June	77.2	68.8	December	92.7	63.8	June	79.5	105.8

RELATIVE MONTHLY PRICES OF PROOF SPIRITS AND THE MATERIAL ENTERING INTO ITS MANUFACTURE, 1884 TO 1899—Concluded.

Year and month.	Proof spirits less tax and rebates.	Corn.	Year and month.	Proof spirits less tax and rebates.	Corn.	Year and month.	Proof spirits less tax and rebates.	Corn.
1891.			1894.			1897.		
July.....	79.5	113.1	June.....	66.0	73.3	March.....	25.1	43.6
August.....	81.1	116.2	July.....	87.6	80.0	April.....	81.7	44.5
September.....	83.4	107.4	August.....	104.6	97.6	May.....	38.6	44.5
October.....	83.4	101.5	September.....	27.4	97.6	June.....	33.6	44.9
November.....	83.4	116.7	October.....	56.8	97.4	July.....	38.6	48.5
December.....	76.8	90.4	November.....	46.8	93.2	August.....	35.5	54.0
1892.			December.....	42.5	91.9	September.....	39.8	54.4
January.....	74.1	70.4	January.....	41.7	84.7	October.....	33.6	43.7
February.....	62.2	74.4	1896.			November.....	32.4	49.1
March.....	58.7	72.6	January.....	42.1	79.0	December.....	31.7	48.2
April.....	58.7	74.6	February.....	38.6	77.4	1898.		
May.....	61.4	129.2	March.....	49.0	81.6	January.....	31.7	49.8
June.....	67.2	98.4	April.....	39.8	86.2	February.....	33.2	53.1
July.....	65.3	91.4	May.....	47.5	96.2	March.....	35.5	53.1
August.....	65.3	96.2	June.....	54.8	91.9	April.....	37.5	59.0
September.....	65.3	84.9	July.....	52.9	82.0	May.....	45.9	63.8
October.....	65.3	78.1	August.....	43.2	74.3	June.....	47.9	59.6
November.....	65.3	76.3	September.....	34.7	62.3	July.....	54.8	61.8
December.....	106.2	75.9	October.....	35.1	56.9	August.....	54.8	58.3
1893.			November.....	36.7	51.8	September.....	54.8	55.5
January.....	135.1	78.3	December.....	36.7	47.6	October.....	54.8	56.6
February.....	73.0	77.2	1896.			November.....	56.0	60.8
March.....	73.0	75.0	January.....	44.4	49.4	December.....	58.7	65.4
April.....	61.8	74.8	February.....	44.4	52.4	1899.		
May.....	54.8	77.2	March.....	44.4	52.6	January.....	56.8	67.5
June.....	52.9	72.6	April.....	44.4	54.4	February.....	54.1	64.7
July.....	52.9	71.5	May.....	44.4	52.4	March.....	54.1	63.6
August.....	52.9	70.2	June.....	44.4	50.4	April.....	54.1	63.8
September.....	52.9	73.3	July.....	40.9	47.8	May.....	54.1	61.4
October.....	58.7	71.7	August.....	37.1	41.7	June.....	54.1	63.2
November.....	64.5	68.4	September.....	35.5	38.4	July.....	54.1	60.5
December.....	64.5	65.1	October.....	32.8	44.9	August.....	54.1	58.3
1894.			November.....	32.8	44.3	September.....	42.5	60.8
January.....	64.5	64.2	December.....	32.8	42.5	October.....	46.3	58.8
February.....	64.5	63.8	1897.			November.....	48.6	58.1
March.....	64.5	65.6	January.....	27.0	41.4	December.....	48.3	56.1
April.....	64.5	69.7	February.....	25.1	41.4			
May.....	64.5	69.1						

In 1894 the tax on spirits was changed from 90 cents per gallon to \$1.10 per gallon. The American Spirits Manufacturing Company, which controlled a large proportion of the product for some years, paid quite large rebates from the quoted market prices during the years 1890 to 1895. The amount of these rebates was secured as accurately as possible from the most trustworthy sources, but inasmuch as the companies have been reorganized twice since the rebates were paid, it is not entirely certain that the sum given for the rebates is exactly right at all of the dates.

It is somewhat difficult to see in this case the margin between the raw material and the finished product. The chief raw material is corn. In many cases the price of spirits is based directly upon that of corn, so that the fluctuations in the one correspond quite closely with fluctuations in the other. During the years covered by the tables various improvements were made in the methods of manufacture, so that the quantity of alcohol received from one bushel of corn was considerably increased. In the distilleries that were operated by the combination in the year 1884 there were secured on the average 4.10 gallons of proof spirits per bushel of corn. In 1888 the amount had increased to

4.53, in 1895 to 4.66, in 1898 to 4.80, and in 1899 it was reduced to 4.69. In order to calculate accurately the margin, therefore, so as to see as nearly as possible the effect of the combination upon prices, it is necessary first to deduct from the market price of proof spirits the revenue tax, then also the rebate during the period that the rebates were paid, and to multiply this result by the number of gallons of proof spirits extracted from one bushel of corn. The variations in the margin, then, between the price of corn per bushel and this result should show substantially the variations in the profits of the combination, so long as the processes of manufacture remain substantially the same.

Before the organization of the whisky trust, in the earlier part of 1887, there had been several pools formed for the purpose of restricting the output. Most of these pools lasted less than a year. It will be seen that in May, 1887, there was a very decided drop in the price of spirits as compared with that of corn. It was asserted at the time that the price was cut by the combination for the purpose of forcing competitors to join. This cut in the price made, of course, a cut in the margin and a lessening in the profits of all distillers. The price remained low until the close of the year. It was raised in January, 1888, and again in May, the price being enough to considerably more than correspond to one or two increases in the price of corn. The margin, showing the profits, increased of course very rapidly. Through most of the year 1889 and the early part of 1890 the price as compared with that of corn was again cut. During the early part of 1890 the trust was reorganized as a single corporation, but no material change was made in its management. About the middle of 1891 the Shufeldt Distillery, perhaps the chief rival of the organization, was purchased, and the price of spirits as compared with that of corn was pushed considerably higher.

For the next three years there are noticeable very violent fluctuations in the price of spirits as compared with the price of corn, the margin sometimes being very low and sometimes very high. It was asserted by many interested that the managers were conducting the business rather for purposes of speculation on their own part than in the interests of the stockholders; and this feeling became so strong, and so much evidence was brought forward, that in the earlier part of 1895, after the margin had been cut to almost nothing, a receiver was appointed, and the management of the business was taken out of the hands of the former directors. Whatever the causes may have really been, these violent fluctuations in the price of spirits as compared with the price of corn are what might be expected from the causes asserted.

A little after the middle of 1895 a new corporation was organized to take over the larger part of the business of the former company. The margin almost immediately increased considerably, although it did not go back to so large an amount as during most of the time

from the years 1886 to 1891. There seems to have been another period of depression in 1897, but during the years 1898 and 1899 the price of spirits as compared with that of corn was again high. During the year 1898 various organizations in the spirit business had been formed, which were finally, near the middle of the year 1899, combined in the Distilling Company of America, a very large combination which controls at the present time probably 90 per cent of the output of spirits. This study of the prices of spirits as compared with that of corn seems to show that, in this instance, the combination was able to control prices pretty absolutely for comparatively short periods after the formation of the various combinations, both in the way of increasing prices and the margin, and in the way of cutting the market severely in order to affect competitors. On the whole, however, on account of the combination meeting with so much competition, or on account of the policy of its management, prices instead of being made stable were apparently more than usually unstable, until within the period of the last two years covered by the tables.

BEER.—Material is given for a similar study regarding the effect of the combination in beer, which manufactures a large quantity of this product, and which was organized in August, 1898. Hops, corn, and barley form a large part of the raw material in its manufacture, so that an expert brewer or anyone familiar with the process of manufacture will be able to follow in like manner the changes in prices and in the margin, which would tend to show the profits of brewers and the effect of the combination.

In the table immediately following are given the monthly prices of lager beer per barrel and the prices of the materials entering into the manufacture of beer, namely, hops, corn, and barley. This table is followed by another giving the relative prices of the same articles.

MONTHLY PRICES OF LAGER BEER AND THE MATERIALS ENTERING INTO ITS MANUFACTURE, 1892 TO 1899.

[The prices for lager beer are from the books of the combination, those for hops from the American Brewers' Review, and those for corn and barley from the Chicago Board of Trade. The combination manufacturing a large quantity of this product was organized in August, 1898.]

Year and month.	Product— lager beer, per barrel. (a)	Materials.				
		Hops, choice New York, per pound.	Hops, prime New York, per pound.	Hops, Washing- ton and Oregon, per pound.	Corn, No. 2, cash, per bushel. (a)	Barley, No. 3, per bushel. (a)
1892.						
July.....	\$5.00	\$0.25	\$0.28	\$0.25	\$0.4975	\$0.4780
August.....	5.00	.25	.28	.25	.5181	.5087
September.....	5.00	.24	(b)	(b)	.4619	.5450
October.....	5.00	.24	.22	.21	.4257	.5200
November.....	5.00	.24	.22	.23	.4156	.5275
December.....	5.00	.24	.22	.22½	.4181	.5300
1898.						
January.....	5.00	.24	.22	.24½	.4263	.5450
February.....	5.00	.25	.23	.24½	.4200	.5312
March.....	5.00	.24½	.21	.21½	.4081	.5200
April.....	5.00	.23½	.21	.20½	.4075	.5200

a The prices given are the averages of highest and lowest prices for each month.
b Not reported.

MONTHLY PRICES OF LAGER BEER AND THE MATERIALS ENTERING INTO ITS MANUFACTURE, 1892 TO 1899—Continued.

Year and month.	Product— lager beer, per barrel. (a)	Materials.				
		Hops, choice New York, per pound.	Hops, prime New York, per pound.	Hops, Washington and Oregon, per pound.	Corn, No. 2, cash, per bushel. (a)	Barley, No. 3, per bushel. (a)
1893.						
May	\$5.00	\$0.23½	\$0.21	\$0.20½	\$0.4200	\$0.5100
June	5.00	.23½	.21	.23	.3956	.4087
July	5.00	.23	.21	.20½	.3868	.3723
August	5.00	.23½	.21	.20	.3819	.3413
September	5.00	.23½	.21	.20	.3987	.4490
October	5.00	.24½	.22	.22	.3900	.4675
November	5.00	.22	.21	.23	.3719	.4567
December	5.00	.22	.18	.21	.3538	.4448
1894.						
January	5.00	.23	.20	.23	.3487	.4726
February	5.00	.23	.18	.22	.3456	.4775
March	5.00	.21	.16	.21	.3550	.5180
April	5.00	.21	.16	.21	.3756	.5443
May	5.00	.20	(b)	(b)	.3750	.5850
June	4.00	.18	.15	.20	.3988	.5225
July	4.00	.15	.16	.15	.4906	.4700
August	4.00	.12	.13	.13	.5837	.5150
September	4.00	.12	.10	.12	.5826	.5275
October	4.00	.11	.09	(b)	.5094	.5150
November	4.00	.11	(b)	.11	.5019	.5362
December	4.00	.12	.10	.11	.4631	.5100
1895.						
January	4.00	.11	.10	.11	.4325	.5308
February	4.00	.11	.09	.10	.4200	.5417
March	4.00	.10	.08	.10	.4431	.5238
April	4.00	.10	.07	.09	.4638	.5017
May	4.00	.10	.08½	.09	.5081	.5030
June	4.00	(b)	(b)	(b)	.4967	.5050
July	5.00	.08½	.07	(b)	.4462	.4088
August	5.00	.07	.05	.06	.3969	.3750
September	5.00	.05	.04	.07	.3937	.3506
October	5.00	.10	(b)	.06	.3000	.3187
November	5.50	.10½	.07	.07	.2794	.3180
December	5.50	.10½	.08	.10	.2581	.3000
1896.						
January	5.50	.09	.07	.08	.2688	.3080
February	5.50	.09	.06	.08	.2638	.3131
March	5.50	.09	.06	.07	.2962	.3056
April	5.50	.09	.06	.07	.2962	.3195
May	5.50	.09	.06	.07	.2850	.3180
June	5.50	(b)	(b)	(b)	.2738	.2774
July	5.50	(b)	(b)	(b)	.2504	.2620
August	5.50	(b)	(b)	(b)	.2275	.2743
September	5.50	(b)	(b)	(b)	.2087	.2756
October	5.50	.11	.08	.11	.2312	.3080
November	5.50	.15	.10	.16	.2418	.3088
December	5.50	.14	.10	.14	.2313	.2994
1897.						
January	5.00	.14	.10	.14	.2256	.2940
February	5.00	.13	.10	.14	.2250	.2850
March	5.00	.12	.08	.13	.2375	.2813
April	5.00	.10	.07	.12	.2419	.2925
May	5.00	.10	.06	.12	.2425	.2987
June	5.00	.07	(b)	(b)	.2444	.2968
July	5.00	.09	.06	.12	.2644	.3090
August	5.00	.08	.06	.12	.2387	.3245
September	5.00	.10	.06	.09	.2962	.3813
October	5.00	.13	.07	.12	.2650	.3518
November	5.00	.13	.12	.17	.2609	.3019
December	5.00	.13	.12	.18	.2625	.3556
1898.						
January	6.00	.18	.12	.18	.2713	.3236
February	6.00	.19	.15	.17	.2894	.3387
March	6.00	.18	.14	.16	.2894	.3737
April	6.00	.17	.13	.16	.3206	.4125
May	6.00	.16	.12	.14	.3469	.4675
June	6.00	.14	.10	.13	.3237	.3675
July	6.00	.12	.09	(b)	.3362	.3310

a The prices given are the averages of highest and lowest prices for each month.

b Not reported.

MONTHLY PRICES OF LAGER BEER AND THE MATERIALS ENTERING INTO ITS MANUFACTURE, 1892 TO 1899—Concluded.

Year and month.	Product— lager beer, per barrel. (a)	Materials.				
		Hops, choice New York, per pound.	Hops, prime New York, per pound.	Hops, Washing- ton and Oregon, per pound.	Corn, No. 2, cash, per bushel. (a)	Barley, No. 3, per bushel. (a)
1898.						
August	\$6.00	\$0.12	\$0.09	\$0.10	\$0.3175	\$0.3687
September	6.00	(b)	.07	.10	.3025	.3680
October	6.00	(b)	(b)	(b)	.3061	.3850
November	6.00	.19	.15	.19	.3306	.4313
December	5.00	.19	.15	.19	.3556	.4520
1899.						
January	5.00	.18	.12	.18	.3668	.4656
February	5.00	.17	.10	.18	.3525	.4581
March	5.00	.17	.12	.18	.3456	.4485
April	5.00	.16	.10	.18	.3462	.4412
May	5.00	.16	.10	.18	.3444	.3912
June	5.00	.16	.12	.18	.3438	.3817
July	5.00	.16	(b)	(b)	.3294	.3910
August	5.00	.15	.11	.18	.3175	.3713
September	5.00	.12	.10	.15	.3313	.4005
October	5.00	.14	.10	.14	.3200	.4162
November	5.00	.13	.10	.13	.3200	.4016
December	5.00	.13	.09	.12	.3075	.3890

RELATIVE MONTHLY PRICES OF LAGER BEER AND THE MATERIALS ENTERING INTO ITS MANUFACTURE, 1892 TO 1899.

[The combination manufacturing a large quantity of this product was organized in August, 1896.]

Year and month	Product— lager beer.	Materials.				
		Hops, choice New York.	Hops, prime New York.	Hops, Washing- ton and Oregon.	Corn, No. 2, cash.	Barley, No. 3.
1892.						
July	100.0	100.0	100.0	100.0	100.0	100.0
August	100.0	100.0	100.0	100.0	104.1	106.4
September	100.0	96.0	(b)	(b)	92.8	114.0
October	100.0	96.0	95.7	84.0	85.6	108.8
November	100.0	96.0	95.7	92.0	83.5	110.4
December	100.0	96.0	95.7	90.0	83.0	110.9
1893.						
January	100.0	96.0	95.7	96.0	85.7	114.0
February	100.0	100.0	100.0	96.0	84.4	111.1
March	100.0	96.0	91.8	96.0	82.0	108.8
April	100.0	94.0	91.3	82.0	81.9	108.8
May	100.0	94.0	91.3	82.0	84.4	106.7
June	100.0	94.0	91.3	92.0	79.5	85.5
July	100.0	92.0	91.3	82.0	77.7	78.1
August	100.0	94.0	91.3	80.0	76.8	71.4
September	100.0	94.0	91.3	80.0	80.1	98.9
October	100.0	96.0	95.7	88.0	78.4	97.8
November	100.0	88.0	91.3	92.0	74.8	96.0
December	100.0	88.0	78.8	84.0	71.1	93.1
1894.						
January	100.0	92.0	87.0	92.0	70.1	98.8
February	100.0	92.0	78.3	88.0	69.5	99.9
March	100.0	84.0	69.6	84.0	71.4	106.4
April	100.0	84.0	69.6	84.0	75.5	113.9
May	100.0	80.0	(b)	(b)	75.4	111.9
June	80.0	72.0	65.2	80.0	80.2	109.3
July	80.0	60.0	69.6	60.0	86.6	96.3
August	80.0	48.0	56.5	52.0	107.3	107.7
September	80.0	48.0	48.5	48.0	107.0	110.4
October	80.0	44.0	39.1	(b)	102.4	107.7
November	80.0	44.0	(b)	44.0	100.9	112.2
December	80.0	48.0	43.5	44.0	93.1	106.7

a The prices given are the averages of highest and lowest prices for each month.

b Not reported.

RELATIVE MONTHLY PRICES OF LAGER BEER AND THE MATERIALS ENTERING INTO ITS MANUFACTURE, 1892 TO 1899—Concluded.

Year and month.	Product— lager beer.	Materials.				
		Hops, choice New York.	Hops, prime New York.	Hops, Washing- ton and Oregon.	Corn, No. 2, cash.	Barley, No. 3.
1895.						
January.....	80.0	44.0	43.5	44.0	86.9	111.0
February.....	80.0	44.0	39.1	40.0	84.4	113.3
March.....	80.0	40.0	34.8	40.0	89.1	109.6
April.....	80.0	40.0	30.4	36.0	93.2	105.0
May.....	80.0	40.0	37.0	36.0	102.1	105.2
June.....	80.0	(a)	(a)	(a)	100.2	105.6
July.....	100.0	34.0	30.4	(a)	89.7	85.5
August.....	100.0	28.0	21.7	32.0	79.8	78.5
September.....	100.0	20.0	17.4	28.0	67.1	73.3
October.....	100.0	40.0	(a)	20.0	60.3	66.7
November.....	110.0	42.0	30.4	28.0	56.2	66.1
December.....	110.0	42.0	34.8	40.0	51.9	62.8
1896.						
January.....	110.0	36.0	30.4	32.0	54.0	63.4
February.....	110.0	36.0	26.1	32.0	57.0	65.5
March.....	110.0	36.0	26.1	28.0	57.5	63.9
April.....	110.0	36.0	26.1	28.0	59.5	66.8
May.....	110.0	36.0	26.1	28.0	57.3	66.5
June.....	110.0	(a)	(a)	(a)	55.0	58.0
July.....	110.0	(a)	(a)	(a)	52.1	54.8
August.....	110.0	(a)	(a)	(a)	45.7	57.4
September.....	110.0	(a)	(a)	(a)	41.9	57.7
October.....	110.0	44.0	34.8	44.0	46.5	64.4
November.....	110.0	60.0	48.5	64.0	48.5	64.7
December.....	110.0	56.0	48.5	56.0	46.5	62.6
1897.						
January.....	100.0	56.0	48.5	56.0	45.3	61.5
February.....	100.0	52.0	48.5	56.0	45.2	59.8
March.....	100.0	48.0	34.8	52.0	47.7	58.8
April.....	100.0	40.0	30.4	48.0	48.6	61.2
May.....	100.0	40.0	26.1	48.0	48.7	62.5
June.....	100.0	28.0	(a)	(a)	49.1	62.5
July.....	100.0	36.0	26.1	48.0	58.1	64.6
August.....	100.0	32.0	26.1	48.0	59.0	67.9
September.....	100.0	40.0	21.7	36.0	59.5	79.8
October.....	100.0	72.0	30.4	48.0	58.3	73.6
November.....	100.0	72.0	52.2	68.0	58.6	82.0
December.....	100.0	72.0	52.2	72.0	52.8	74.4
1898.						
January.....	120.0	72.0	52.2	72.0	54.5	67.7
February.....	120.0	76.0	65.2	68.0	58.2	70.9
March.....	120.0	72.0	60.9	64.0	58.2	78.2
April.....	120.0	68.0	56.5	64.0	64.4	86.3
May.....	120.0	64.0	52.2	56.0	69.7	97.8
June.....	120.0	56.0	48.5	52.0	65.1	74.8
July.....	120.0	48.0	39.1	(a)	67.6	69.2
August.....	120.0	48.0	39.1	40.0	63.8	77.1
September.....	120.0	(a)	30.4	40.0	60.8	76.6
October.....	120.0	(a)	(a)	(a)	61.9	80.5
November.....	120.0	76.0	65.2	76.0	66.5	90.2
December.....	100.0	76.0	65.2	76.0	71.5	94.6
1899.						
January.....	100.0	72.0	52.2	72.0	78.7	97.4
February.....	100.0	68.0	48.5	72.0	70.9	96.8
March.....	100.0	68.0	52.2	72.0	69.5	93.8
April.....	100.0	64.0	48.5	72.0	69.6	92.3
May.....	100.0	64.0	48.5	72.0	67.2	81.8
June.....	100.0	64.0	52.2	72.0	69.1	79.9
July.....	100.0	64.0	(a)	(a)	66.2	81.8
August.....	100.0	60.0	47.8	72.0	63.8	77.7
September.....	100.0	48.0	48.5	60.0	66.6	83.8
October.....	100.0	56.0	48.5	56.0	64.3	87.1
November.....	100.0	52.0	48.5	52.0	64.3	84.0
December.....	100.0	52.0	39.1	48.0	61.8	81.4

a Not reported.

TIN PLATES.—In the manufacture of tin plates the best price for quotation is that of Bessemer coke tin plates, 14 by 20, full weight box of 108 pounds. For the manufacture of this full weight box, standard

quality, there are employed 105½ pounds of sheet steel and 2½ pounds of tin. It has not been possible to secure any regular prices for American-made tin plates before the year 1895, but the prices of imported tin plates of similar size and quality are carried back to 1889, and the table shows the prices of imported plates, duty paid. The prices of the sheet steel used in the manufacture of tin plates are not so readily available as the prices of steel billets and slabs, from which the steel sheets are rolled, so that in the tables the steel billets and slabs and the pig tin have been used as the raw material out of which the tin plates, as the finished product, are made. The tables follow, the first showing the prices of the American tin plates per box of 108 pounds and of the materials used in their manufacture (105½ pounds of steel billets and slabs and 2½ pounds of pig tin), and the margin of difference between the product and the materials, which includes both the cost of manufacture and the profit on the same:

MONTHLY PRICES OF AMERICAN TIN PLATES AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1895 TO 1899.

[The prices for tin plates and the prices for pig tin and steel billets and slabs which are used as the basis of the figures given below are from the Report of the Industrial Commission on Trusts and Industrial Combinations, page 868. The combination controlling 96 per cent of this product was organized in 1893.]

Year and month.	Product—tin plates, American Bessemer coke, 14 by 20, at New York, per 108 lbs.	Materials.			Difference.	Year and month.	Product—tin plates, American Bessemer coke, 14 by 20, at New York, per 108 lbs.	Materials.			Difference.
		Pig tin at New York, cost of 2½ lbs.	Steel billets and slabs, cost of 105½ lbs.	Total cost.				Pig tin at New York, cost of 2½ lbs.	Steel billets and slabs, cost of 105½ lbs.	Total cost.	
1895.						1897.					
Jan	\$3.70	\$0.3400	\$0.6999	\$1.0399	\$2.6601	July	\$3.30	\$0.3450	(a)	(a)	(a)
Feb	3.75	.3400	.6994	1.0394	2.7106	Aug	3.20	.3450	(a)	(a)	(a)
Mar	3.75	.3450	.7008	1.0458	2.7042	Sept	3.15	.3400	\$0.6928	\$1.0328	\$2.1172
Apr	3.75	.3500	.6952	1.0452	2.7048	Oct	3.15	.3400	.7098	1.0498	2.1002
May	3.70	.3600	.7074	1.0674	2.6326	Nov	3.15	.3400	.6834	1.0234	2.1266
June	3.70	.3550	.7357	1.0907	2.6093	Dec	3.15	.3400	.6509	.9909	2.1591
July	3.80	.3550	.8091	1.1641	2.6359	1898.					
Aug	3.75	.3600	.8591	1.2191	2.5309	Jan	3.15	.3450	.6561	1.0011	2.1489
Sept	3.75	.3650	.8821	1.2471	2.5029	Feb	3.15	.3500	.6603	1.0103	2.1397
Oct	3.70	.3675	.9533	1.3208	2.3792	Mar	3.15	.3550	.6694	1.0144	2.1356
Nov	3.67½	.3650	.9443	1.3093	2.3657	Apr	3.10	.3600	.6613	1.0213	2.0787
Dec	3.65	.3450	.9292	1.2742	2.3758	May	3.10	.3675	.6669	1.0344	2.0656
1896.						June	3.10	.3750	.7102	1.0652	2.0148
Jan	3.60	.3300	.9980	1.3280	2.2720	July	3.05	.3850	.6989	1.0839	1.9661
Feb	3.65	.3300	.9038	1.2338	2.4162	Aug	3.00	.3950	.6961	1.0911	1.9089
Mar	3.55	.3350	.8299	1.1649	2.3851	Sept	3.00	.4050	.6942	1.0992	1.9008
Apr	3.55	.3350	.8313	1.1663	2.3837	Oct	2.90	.4250	.7022	1.1272	1.7728
May	3.65	.3350	.8986	1.2336	2.4164	Nov	2.95	.4500	.7112	1.1612	1.7888
June	3.55	.3350	.9471	1.2821	2.2679	Dec	3.10	.4650	.6947	1.1597	1.9403
July	3.60	.3350	.8949	1.2299	2.3701	1899.					
Aug	3.60	.3800	(a)	(a)	(a)	Jan	3.34	.5500	.7314	1.2814	2.0586
Sept	3.65	.3250	.9500	1.2750	2.3750	Feb	3.84	.5750	.7055	1.2805	2.5595
Oct	3.55	.3200	.9161	1.2361	2.3139	Mar	4.21½	.5875	.6886	1.2761	2.9389
Nov	3.60	.3250	.9057	1.2307	2.3693	Apr	4.21½	.6250	.7649	1.3899	2.8251
Dec	3.45	.3250	.7960	1.1210	2.3290	May	4.21½	.6350	.7192	1.3542	2.8608
1897.						June	4.21½	.6400	.7107	1.3507	2.8643
Jan	3.40	.3300	.7131	1.0431	2.3569	July	4.71½	.7125	.8091	1.5216	3.1934
Feb	3.30	.3350	.7258	1.0608	2.2392	Aug	5.00	.7750	1.2476	2.0226	2.9774
Mar	3.35	.3300	.7352	1.0652	2.2848	Sept	5.00	.7900	1.2651	2.0551	2.9449
Apr	3.40	.3300	.7352	1.0652	2.3348	Oct	5.00	.7800	1.5717	2.3517	2.6483
May	3.40	.3300	.7371	1.0671	2.3329	Nov	5.00	.7000	1.5255	2.2255	2.7745
June	3.35	.3400	.7281	1.0681	2.2819	Dec	5.00	(a)	(a)	(a)	(a)

a Not reported.

RELATIVE MONTHLY PRICES OF AMERICAN TIN PLATES AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1895 TO 1899.

[The combination controlling 95 per cent of this product was organized in 1896.]

Year and month.	Product—tin plates, American Bessemer coke, 14 by 20, at New York.	Materials.		Year and month.	Product—tin plates, American Bessemer coke, 14 by 20, at New York.	Materials.	
		Pig tin at New York.	Steel billets and slabs.			Pig tin at New York.	Steel billets and slabs.
1895.				1897.			
January	100.0	100.0	100.0	July	89.2	101.5	(a)
February	101.4	100.0	99.9	August	86.5	101.5	(a)
March	101.4	101.5	100.1	September	85.1	100.0	99.0
April	101.4	102.9	99.3	October	85.1	100.0	101.4
May	100.0	105.9	101.1	November	85.1	100.0	97.6
June	100.0	104.4	105.1	December	85.1	100.0	93.0
July	102.7	104.4	115.6	1898.			
August	101.4	105.9	122.7	January	85.1	101.5	98.7
September	101.4	107.4	126.0	February	85.1	102.9	94.3
October	100.0	108.1	136.2	March	85.1	104.4	94.2
November	99.8	107.4	134.9	April	83.8	105.9	94.5
December	98.6	101.5	132.8	May	83.8	108.1	95.3
1896.				June	83.8	110.3	101.5
January	97.8	97.1	142.6	July	82.4	113.2	99.9
February	98.6	97.1	129.1	August	81.1	116.2	99.5
March	95.9	98.5	118.6	September	81.1	119.1	99.2
April	95.9	98.5	118.8	October	78.4	125.0	100.3
May	98.6	98.5	128.4	November	79.7	132.4	101.6
June	95.9	98.5	135.3	December	83.8	136.8	99.3
July	97.8	98.5	127.9	1899.			
August	97.8	97.1	(a)	January	90.8	161.8	104.5
September	98.6	95.6	135.7	February	108.8	169.1	100.8
October	95.9	94.1	130.9	March	113.9	172.8	98.4
November	97.3	95.6	129.4	April	113.9	183.8	109.3
December	98.2	95.6	118.7	May	113.9	186.8	102.8
1897.				June	113.9	188.2	101.5
January	91.9	97.1	101.9	July	127.4	209.6	115.6
February	89.2	98.5	108.7	August	135.1	227.9	178.3
March	90.5	97.1	105.0	September	135.1	232.4	180.8
April	91.9	97.1	105.0	October	135.1	229.4	224.6
May	91.9	97.1	105.3	November	135.1	205.9	218.0
June	90.5	100.0	104.0	December	135.1	(a)	(a)

a Not reported.

MONTHLY PRICES OF IMPORTED TIN PLATES, 1889 TO 1899.

[The prices shown are from the Report of the Industrial Commission on Trusts and Industrial Combinations, page 869.]

Year and month.	Tin plates, imported, coke, 14 by 20, at New York, duty paid, per 108 lbs.	Year and month.	Tin plates, imported, coke, 14 by 20, at New York, duty paid, per 108 lbs.	Year and month.	Tin plates, imported, coke, 14 by 20, at New York, duty paid, per 108 lbs.
1889.					
January	\$4.21	July	\$4.48	January	\$4.55
February	4.20	August	4.78	February	4.85
March	4.22	September	5.15	March	4.85
April	4.28	October	5.40	April	4.85
May	4.27	November	5.40	May	4.85
June	4.25	December	5.10	June	4.85
July	4.25			July	4.82
August	4.25	1891.			
September	4.32	January	5.32	August	4.80
October	4.51	February	5.42	September	4.85
November	4.73	March	5.30	October	4.85
December	4.62	April	5.20	November	5.00
1890.					
January	4.66	May	5.25	December	5.00
February	4.47	June	5.59	1893.	
March	4.44	July	5.37	January	5.25
April	4.37	August	5.46	February	5.32
May	4.35	September	5.36	March	5.30
June	4.41	October	5.31	April	5.27
		November	5.28	May	5.25
		December	5.28	June	5.20

MONTHLY PRICES OF IMPORTED TIN PLATES, 1889 TO 1899—Concluded.

Year and month.	Tin plates, imported, coke, 14 by 20, at New York, duty paid, per 106 lbs.	Year and month.	Tin plates, imported, coke, 14 by 20, at New York, duty paid, per 106 lbs.	Year and month.	Tin plates, imported, coke, 14 by 20, at New York, duty paid, per 106 lbs.
1893.		1895.		1897.	
July	\$5. 17½	September	\$3. 75	November	\$3. 72
August	5. 15	October	3. 70	December	3. 72
September	5. 15	November	3. 67½		
October	5. 12½	December	3. 65	1898.	
November	5. 10			January	4. 05
December	5. 10	1896.		February	4. 05
1894.		January	3. 60	March	3. 99
January	5. 05	February	3. 57½	April	4. 05
February	5. 00	March	3. 50	May	4. 10
March	4. 95	April	3. 50	June	4. 10
April	4. 95	May	3. 50	July	4. 10
May	4. 92½	June	3. 50	August	4. 16
June	4. 92½	July	3. 47½	September	4. 16
July	4. 92½	August	3. 47½	October	4. 10
August	4. 92½	September	3. 45	November	4. 16
September	4. 90	October	3. 45	December	4. 22
October	4. 00	November	3. 40		
November	3. 90	December	3. 40	1899.	
December	3. 80	1897.		January	4. 22
1895.		January	3. 84	February	4. 40
January	3. 70	February	3. 84	March	4. 34
February	3. 62½	March	3. 78	April	4. 34
March	3. 60	April	3. 78	May	4. 57
April	3. 60	May	3. 78	June	4. 76
May	3. 62½	June	3. 75	July	5. 05
June	3. 67½	July	3. 72	August	5. 58
July	3. 75	August	3. 72	September	5. 40
August	3. 75	September	3. 72	October	5. 31
		October	3. 72	November	5. 31
				December	5. 34

If one calculates the cost of 105½ pounds of steel plus that of 2½ pounds of pig tin and subtracts this from the price of a box of American tin plates, standard size, one will arrive at the margin which will show the cost of manufacture plus the profits of the manufacturers.

Somewhat after the middle of the year 1895 there was a lowering in this margin, due, as will be seen from the tables, mainly to an increase in the prices of both steel and pig tin, with no corresponding increase in the price of tin plates. This margin, it will be noticed, decreased through the year 1897 and the greater part of 1898, the decrease being due chiefly to the lessening price of the product, the prices of the raw materials, with sundry variations, remaining on the whole substantially uniform. In the latter part of 1898 and at the beginning of 1899 the margin again rapidly increased. The price of tin plates increased from \$2.90 per box in October, 1898, to \$3.84 in February, 1899; \$4.21½ in the months following; \$4.71½ in July, and \$5 during the latter part of the year. While pig tin increased also very rapidly in value, that forms a relatively small part of the cost of tin plates, and there was no corresponding increase in the price of steel until July and August, 1899, when the price of steel also began to increase very rapidly. The consequence of these changes was that during the earlier part of 1899 the margin went back to as high a point as during the

year 1896. The study of the tables shows that the organization of the combination among the tin-plate manufacturers, which, for the time being at least, controlled some 95 per cent of the product, was followed by a decided increase in the margin. The American Tin Plate Company was organized in December, 1898, and for some little time before there had been negotiations among the tin-plate manufacturers so that the completion of the organization was expected. While doubtless the chief cause for the very great increase in the price of tin plates is to be found in the increase in the raw materials, as well as an increase also in wages, which has been shown elsewhere to be over 35 per cent on the average, the increase in the margin has been so great that it is probable that the profit has increased since the organization of the combination.

If one notices somewhat carefully the tables from, say, September, 1898, through the year 1899, the difference can be seen between the increase in the margin and the increase in relative prices. During that period the relative price of the chief raw material, steel, increased over 118 points. The price of pig tin increased over 86 points, while the price of the finished product increased only 54 points. One might be led carelessly, therefore, to assume that the profits of the manufacturers had lessened, but the study of the marginal figures will show that the margin had on the whole very decidedly increased between those dates—almost 46 per cent—and, with the margin, doubtless the profits of the manufacturers increased also.

The prices of imported tin plates show very decided changes in August, 1890. This change, it is alleged, was due to the tariff which increased the duty on tin plates from 1 cent a pound to 2.2 cents. Although the tariff did not take effect until July 1, 1891, the effect on the price of tin plates was felt immediately as soon as it was known that the tariff was to become a law. The lowering of the duty again from 2.2 to 1.2 cents in the latter part of August, 1894, is shown in the drop which took place in October and the succeeding months. The increase of the tariff again from 1.2 cents to 1.5 cents per pound, taking effect in July, 1897, was felt some 6 months before, in January, when the price increased by some 40 cents a box.

IRON AND STEEL.—In the short tables which follow are given the relative monthly prices of a number of iron and steel products and of their principal materials.

RELATIVE MONTHLY PRICES OF BAR IRON AND THE MATERIALS ENTERING INTO ITS MANUFACTURE AT CHICAGO, 1889 TO 1899.

[The relative prices shown in this table are based on actual monthly prices shown in Tables II, IV, and VI. The combination controlling a large portion of this product was organized in May, 1899.]

Year and month.	Prod-uct—bar iron, common.	Materials.			Year and month.	Prod-uct—bar iron, common.	Materials.		
		Pig iron, foundry, No. 2, local.	Scrap, No. 1, mill.	Coke, Pennsylv.			Pig iron, foundry, No. 2, local.	Scrap, No. 1, mill.	Coke, Pennsylv.
1889.					1894.				
Jan.....	100.0	100.0	100.0	100.0	July.....	64.7	60.0	46.4	91.8
Feb.....	98.5	91.8	100.0	100.0	Aug.....	64.7	59.2	46.4	91.8
Mar.....	95.6	93.3	100.0	100.0	Sept.....	61.8	59.2	50.0	91.8
Apr.....	94.1	94.0	96.4	100.0	Oct.....	58.8	59.2	50.0	91.8
May.....	91.2	91.8	92.9	97.6	Nov.....	61.8	57.5	50.0	91.8
June.....	91.2	90.3	92.9	94.1	Dec.....	61.8	57.8	50.0	91.8
July.....	94.1	91.8	100.0	92.9					
Aug.....	97.1	91.8	101.8	92.9	1895.				
Sept.....	100.0	91.8	103.6	103.5	Jan.....	61.8	57.8	46.4	91.8
Oct.....	102.9	97.0	114.3	103.5	Feb.....	58.8	57.8	46.4	91.8
Nov.....	108.8	98.5	121.4	107.1	Mar.....	58.8	58.1	46.4	91.8
Dec.....	113.2	106.6	125.0	112.9	Apr.....	64.7	60.7	46.4	97.6
					May.....	64.7	60.7	50.0	97.6
1890.					June.....	70.6	64.5	53.6	97.6
Jan.....	114.7	117.0	117.9	116.5	July.....	76.5	71.9	57.1	97.6
Feb.....	111.8	109.6	117.9	125.9	Aug.....	82.4	78.2	64.3	97.6
Mar.....	106.9	102.2	110.7	122.4	Sept.....	88.2	80.7	71.4	97.6
Apr.....	102.9	99.2	103.6	122.4	Oct.....	88.2	82.9	64.3	109.4
May.....	100.0	96.3	100.0	122.4	Nov.....	88.2	82.9	57.1	114.1
June.....	105.9	96.3	110.7	122.4	Dec.....	82.4	82.9	53.6	
July.....	105.9	97.7	114.3	122.4					
Aug.....	108.8	97.7	117.9	122.4	1896.				
Sept.....	111.8	97.7	117.9	122.4	Jan.....	76.5	74.3	46.4	121.2
Oct.....	108.8	94.8	114.3	122.4	Feb.....	79.4	74.1	50.0	121.2
Nov.....	105.9	92.5	110.7	122.4	Mar.....	76.5	71.1	58.6	121.2
Dec.....	104.4	90.3	103.6	122.4	Apr.....	76.5	71.1	55.4	112.9
					May.....	76.5	69.3	53.6	112.9
1891.					June.....	76.5	68.1	50.0	112.9
Jan.....	100.0	87.4	100.0	118.8	July.....	76.5	66.6	48.2	107.1
Feb.....	101.5	90.3	98.2	118.8	Aug.....	76.5	66.2	46.4	107.1
Mar.....	100.0	90.3	98.2	118.8	Sept.....	76.5	63.7	42.9	107.1
Apr.....	97.1	92.5	96.4	118.8	Oct.....	76.5	64.5	46.4	107.1
May.....	97.1	91.8	96.4	118.8	Nov.....	67.6	66.3	53.6	107.1
June.....	98.5	90.3	98.2	118.8	Dec.....	73.5	66.6	53.6	107.1
July.....	98.5	89.6	101.8	118.8					
Aug.....	98.5	89.6	103.6	118.8	1897.				
Sept.....	102.9	89.6	101.8	118.8	Jan.....	73.5	65.3	50.0	107.1
Oct.....	102.9	89.6	98.2	118.8	Feb.....	73.5	65.2	50.0	107.1
Nov.....	98.5	88.2	94.6	118.8	Mar.....	66.2	64.5	50.0	107.1
Dec.....	106.0	87.4	89.3	118.8	Apr.....	61.8	63.7	48.2	107.1
					May.....	61.8	61.5	42.9	107.1
1892.					June.....	58.8	60.7	39.3	107.1
Jan.....	97.1	85.9	89.3	118.8	July.....	63.2	60.7	41.1	107.1
Feb.....	98.5	85.1	89.3	118.8	Aug.....	64.7	60.7	41.1	107.1
Mar.....	95.6	82.9	82.1	118.8	Sept.....	64.7	61.6	46.4	107.1
Apr.....	92.6	82.9	78.6	118.8	Oct.....	67.6	65.2	50.0	107.1
May.....	89.7	82.9	75.0	118.8	Nov.....	64.7	65.2	46.4	107.1
June.....	91.2	82.9	71.4	118.8	Dec.....	64.7	65.2	46.4	107.1
July.....	95.6	82.9	78.6	118.8					
Aug.....	97.1	81.5	78.6	118.8	1898.				
Sept.....	97.1	80.0	78.6	118.8	Jan.....	61.8	65.2	46.4	107.1
Oct.....	95.6	80.0	78.6	118.8	Feb.....	61.8	64.8	48.2	107.1
Nov.....	95.6	80.0	78.6	118.8	Mar.....	61.8	63.7	50.0	103.5
Dec.....	95.6	80.0	78.6	118.8	Apr.....	63.2	64.6	50.0	103.5
					May.....	64.7	65.2	46.4	103.5
1893.					June.....	66.2	65.2	46.4	103.5
Jan.....	92.6	79.2	76.8	118.8	July.....	60.3	65.2	46.4	103.5
Feb.....	91.2	75.9	76.8	118.8	Aug.....	61.8	65.2	46.4	103.5
Mar.....	92.6	77.0	76.8	118.8	Sept.....	61.8	65.2	47.3	103.5
Apr.....	89.7	77.0	75.0	118.8	Oct.....	61.8	65.2	48.2	106.9
May.....	88.2	76.8	71.4	118.8	Nov.....	60.3	65.2	44.6	103.5
June.....	86.8	77.0	64.3	118.8	Dec.....	61.8	65.2	48.2	103.5
July.....	86.8	75.8	64.3	118.8					
Aug.....	85.3	75.5	60.7	118.8	1899.				
Sept.....	86.8	75.5	57.1	105.9	Jan.....	61.8	65.9	50.0	107.1
Oct.....	85.3	75.5	57.1	105.9	Feb.....	67.6	71.8	56.4	107.1
Nov.....	82.4	75.5	57.1	98.8	Mar.....	85.3	96.5	62.5	107.1
Dec.....	79.4	69.3	57.1	98.8	Apr.....	92.6	89.6	64.3	107.1
					May.....	96.6	91.1	64.3	107.1
1894.					June.....	105.9	104.3	62.5	107.1
Jan.....	73.5	74.1	58.9	98.8	July.....	108.8	115.5	60.7	111.8
Feb.....	70.6	70.3	48.2	98.8	Aug.....	117.6	121.4	64.3	111.8
Mar.....	67.6	66.9	48.2	98.8	Sept.....	132.4	136.3	92.9	123.5
Apr.....	64.7	62.2	46.4	91.8	Oct.....	135.3	136.3	103.6	129.4
May.....	61.8	62.2	46.4	91.8	Nov.....	135.3	139.2	96.4	129.4
June.....	61.8	62.2	46.4	91.8	Dec.....	135.3	139.2	92.9	135.8

**RELATIVE MONTHLY PRICES OF BARBED WIRE AND NAILS AND THE MATERIALS
ENTERING INTO THEIR MANUFACTURE, 1889 TO 1899.**

[The relative prices shown in this table are based on actual monthly prices shown in Tables II, IV, and VI. The combination controlling all the barbed wire, 65 to 95 per cent of the wire nails, and 75 to 95 per cent of the steel rods and smooth wire was organized in January, 1899.]

Year and month.	Products.			Materials.		Year and month.	Products.			Materials.	
	Barbed wire at Chi-cago.	Cut steel nails at Chi-cago.	Wire nails at Chi-cago.	Steel billets at Pitts-burg.	Coke, Penn-sylvan-ia, at Chi-cago.		Barbed wire at Chi-cago.	Cut steel nails at Chi-cago.	Wire nails at Chi-cago.	Steel billets at Pitts-burg.	Coke, Penn-sylvan-ia, at Chi-cago.
1889.						1894.					
Jan....	100.0	100.0	100.0	100.0	100.0	July....	80.4	51.3	47.1	64.0	91.8
Feb....	98.2	102.6	94.1	98.9	100.0	Aug....	80.4	48.7	45.1	61.0	91.8
Mar....	96.4	100.0	92.2	96.9	100.0	Sept....	78.6	48.7	43.1	61.1	91.8
Apr....	96.4	100.0	92.2	96.0	100.0	Oct....	76.8	46.2	41.2	56.9	91.8
May....	94.6	97.4	90.2	95.7	97.6	Nov....	71.4	46.2	41.2	56.4	91.8
June....	94.6	94.9	90.2	94.7	94.1	Dec....	69.6	46.2	39.2	53.8	91.8
July....	94.6	94.9	90.2	96.4	92.9	1895.					
Aug....	94.6	94.9	88.2	100.9	92.9	Jan....	67.9	48.7	37.3	53.0	91.8
Sept....	98.2	102.6	92.2	104.6	103.5	Feb....	67.9	48.7	37.3	53.2	91.8
Oct....	108.9	123.1	100.0	119.8	103.5	Mar....	69.6	46.2	39.2	52.8	91.8
Nov....	112.5	123.1	123.5	120.9	107.1	Apr....	67.9	46.2	37.3	54.9	97.6
Dec....	116.1	129.5	117.6	126.2	112.9	May....	69.6	47.4	43.1	58.0	97.6
1890.						June....	75.0	64.1	58.8	66.8	97.6
Jan....	116.1	128.2	113.7	130.3	116.5	July....	76.8	67.2	76.5	73.8	97.6
Feb....	119.6	128.1	115.7	125.4	125.9	Aug....	91.1	100.0	86.3	77.3	97.6
Mar....	117.9	117.9	107.8	111.6	122.4	Sept....	101.8	110.3	94.1	85.3	97.6
Apr....	112.5	107.7	94.1	100.9	122.4	Oct....	101.8	110.3	94.1	77.9	109.4
May....	103.6	94.9	90.2	98.0	122.4	Nov....	101.8	111.5	94.9	68.0	114.1
June....	101.8	100.0	94.1	107.6	122.4	Dec....	71.4	111.5	94.9	60.3	114.1
July....	101.8	102.6	94.1	109.2	122.4	1896.					
Aug....	101.8	102.6	98.0	107.6	122.4	Jan....	72.3	111.3	94.9	59.7	121.2
Sept....	101.8	100.0	100.0	107.1	122.4	Feb....	70.5	111.3	94.9	61.8	121.2
Oct....	101.8	100.0	94.1	102.8	122.4	Mar....	69.6	119.0	100.8	60.8	121.2
Nov....	98.2	94.9	90.2	97.3	122.4	Apr....	73.2	117.9	100.0	69.5	112.9
Dec....	96.4	89.7	88.2	93.3	122.4	May....	76.8	125.6	105.9	69.3	112.9
1891.						June....	71.4	125.6	105.9	68.0	112.9
Jan....	96.4	89.7	87.1	91.0	118.8	July....	71.4	125.6	105.9	67.0	107.1
Feb....	96.4	89.7	89.0	92.5	118.8	Aug....	67.9	125.6	105.9	66.7	107.1
Mar....	101.8	92.3	87.1	93.3	118.8	Sept....	66.1	125.6	105.9	70.2	107.1
Apr....	101.8	89.7	83.1	90.1	118.8	Oct....	66.1	125.6	105.9	70.2	107.1
May....	100.9	87.2	80.4	90.7	118.8	Nov....	66.1	125.6	105.9	71.1	107.1
June....	98.2	87.2	79.2	89.8	118.8	Dec....	69.6	76.9	62.7	62.2	107.1
July....	96.4	84.6	81.2	90.7	118.8	1897.					
Aug....	99.1	87.2	79.2	90.0	118.8	Jan....	67.9	76.9	57.6	54.8	107.1
Sept....	100.0	87.2	78.4	88.9	118.8	Feb....	66.1	76.9	56.9	54.2	107.1
Oct....	91.1	84.6	74.5	88.5	118.8	Mar....	67.9	74.4	58.8	54.9	107.1
Nov....	91.1	84.6	72.5	85.9	118.8	Apr....	64.3	71.8	57.6	51.9	107.1
Dec....	91.1	84.6	70.6	86.1	118.8	May....	64.3	69.2	56.1	49.1	107.1
1892.						June....	62.5	66.7	55.3	50.0	107.1
Jan....	92.9	83.3	71.4	88.9	118.8	July....	62.5	69.2	52.9	49.8	107.1
Feb....	87.5	83.3	73.3	86.6	118.8	Aug....	58.9	71.8	53.3	49.8	107.1
Mar....	85.7	83.3	72.5	81.8	118.8	Sept....	64.3	71.8	58.4	55.5	107.1
Apr....	82.1	82.1	68.6	81.1	118.8	Oct....	64.3	79.5	60.4	58.5	107.1
May....	82.1	82.1	66.7	79.7	118.8	Nov....	64.3	74.4	58.4	56.4	107.1
June....	82.1	83.3	61.6	81.7	118.8	Dec....	64.3	74.4	58.4	53.3	107.1
July....	82.1	82.1	66.7	83.6	118.8	1898.					
Aug....	78.6	83.3	66.7	84.7	118.8	Jan....	67.9	74.4	60.8	53.1	107.1
Sept....	78.6	83.3	65.5	84.1	118.8	Feb....	67.9	74.4	61.6	53.6	107.1
Oct....	76.8	83.3	61.6	83.7	118.8	Mar....	67.9	75.6	60.8	54.2	103.5
Nov....	76.8	82.1	62.7	88.7	118.8	Apr....	67.0	70.5	57.6	53.6	103.5
Dec....	75.0	82.1	62.7	79.7	118.8	May....	64.3	69.2	56.9	52.8	103.5
1893.						June....	64.3	69.2	56.1	52.1	108.5
Jan....	85.7	82.1	61.6	76.7	118.8	July....	64.3	69.2	58.3	51.6	108.5
Feb....	85.7	82.1	60.8	76.9	118.8	Aug....	64.3	69.2	58.3	56.4	103.5
Mar....	78.1	78.1	64.7	80.4	118.8	Sept....	64.3	69.2	56.1	56.9	108.5
Apr....	87.5	69.2	64.7	79.8	118.8	Oct....	65.2	69.2	57.3	55.3	105.9
May....	87.5	67.9	62.7	77.1	118.8	Nov....	65.2	69.2	54.5	58.6	108.5
June....	87.5	64.1	58.8	77.2	118.8	Dec....	65.2	69.2	53.7	56.2	103.5
July....	87.5	62.8	57.6	74.9	118.8	1899.					
Aug....	87.5	62.8	57.6	72.7	118.8	Jan....	73.2	71.8	62.4	59.1	107.1
Sept....	83.9	62.8	57.6	68.7	105.9	Feb....	80.4	71.8	67.8	64.0	107.1
Oct....	80.4	62.8	54.9	64.2	105.9	Mar....	93.8	84.6	82.0	86.4	107.1
Nov....	76.8	61.6	51.0	61.8	98.8	Apr....	100.0	94.9	88.2	90.2	107.1
Dec....	75.0	60.3	49.8	59.4	98.8	May....	105.4	97.4	92.2	96.1	107.1
1894.						June....	114.3	102.6	100.8	107.0	107.1
Jan....	80.4	59.0	45.9	57.3	98.8	July....	117.9	117.9	105.9	117.8	111.8
Feb....	80.4	53.8	47.1	56.0	98.8	Aug....	121.4	120.5	109.8	126.7	111.8
Mar....	82.1	52.6	45.1	55.3	98.8	Sept....	131.3	130.8	120.0	126.5	123.6
Apr....	78.6	51.3	39.2	55.8	91.8	Oct....	134.8	138.5	124.3	120.0	129.4
May....	76.8	48.7	42.0	64.0	91.8	Nov....	138.6	143.6	128.6	129.8	129.4
June....	78.6	48.7	47.1	64.4	91.8	Dec....	147.5	143.6	129.6	137.8	136.3

The monthly prices of black merchant pipe and its principal raw material, skelp, and the relative monthly prices of black merchant pipe and the various materials entering into the manufacture of the product are given in the tables which follow:

MONTHLY PRICES OF BLACK MERCHANT PIPE AND SKELP (ITS PRINCIPAL RAW MATERIAL), 1879 TO 1899. (a)

[The prices are taken from the books of the combination. The combination controlling 90 per cent of this product was organized in May, 1899.]

Year and month.	Black merchant pipe, $\frac{1}{2}$ in. to 8 in., per ton.	Skelp (plates), per ton.	Year and month.	Black merchant pipe, $\frac{1}{2}$ in. to 8 in., per ton.	Skelp (plates), per ton.	Year and month.	Black merchant pipe, $\frac{1}{2}$ in. to 8 in., per ton.	Skelp (plates), per ton.
1879.			1885.			1889.		
Mar.....	\$40.40	(b)	Jan.....	\$50.60	\$36.98	Mar.....	\$50.60	\$34.18
Dec.....	123.00	(b)	Feb.....	49.40	36.91	Apr.....	51.20	33.76
1881.			Mar.....	48.80	36.02	May.....	49.40	32.18
Jan.....	70.50	\$46.27	Apr.....	47.40	35.13	June.....	52.20	33.81
Feb.....	68.67	46.30	May.....	47.80	37.54	July.....	55.20	33.81
Mar.....	66.05	46.50	June.....	49.40	36.17	Aug.....	55.80	34.28
Apr.....	65.02	46.65	July.....	51.40	37.00	Sept.....	56.20	34.89
May.....	63.20	46.80	Aug.....	53.40	38.09	Oct.....	57.20	35.58
June.....	63.20	46.75	Sept.....	53.00	38.00	Nov.....	63.40	36.83
July.....	66.80	46.11	Oct.....	52.60	37.90	Dec.....	64.20	37.14
Aug.....	74.80	49.53	Nov.....	54.40	38.73			
Sept.....	80.40	53.01	Dec.....	52.60	38.46	1890.		
Oct.....	84.00	53.79	1886.			Jan.....	66.40	38.11
Nov.....	89.40	55.86	Jan.....	57.80	38.68	Feb.....	61.20	36.69
Dec.....	95.40	58.48	Feb.....	55.60	38.66	Mar.....	61.80	37.29
1882.			Mar.....	56.40	38.86	Apr.....	63.60	37.95
Jan.....	91.80	59.61	Apr.....	57.40	39.39	May.....	63.20	37.47
Feb.....	87.00	60.44	May.....	56.40	38.67	June.....	62.00	36.49
Mar.....	87.40	59.90	June.....	61.20	38.71	July.....	61.40	36.41
Apr.....	86.40	57.69	July.....	65.20	38.13	Aug.....	61.20	37.78
May.....	76.20	54.11	Aug.....	63.80	39.29	Sept.....	61.60	38.02
June.....	82.80	52.95	Sept.....	59.20	38.85	Oct.....	63.20	38.41
July.....	90.00	55.00	Oct.....	61.60	38.86	Nov.....	61.80	38.10
Aug.....	96.20	60.53	Nov.....	64.00	40.89	Dec.....	62.60	37.88
Sept.....	89.00	58.00	Dec.....	59.20	40.29	1891.		
Oct.....	85.60	56.27	1887.			Jan.....	61.60	37.33
Nov.....	79.20	51.48	Jan.....	61.60	44.23	Feb.....	61.00	36.23
Dec.....	77.80	47.74	Feb.....	65.20	44.97	Mar.....	62.00	37.22
1883.			Mar.....	65.40	45.71	Apr.....	59.40	35.53
Jan.....	70.20	45.69	Apr.....	65.80	44.91	May.....	56.00	34.64
Feb.....	68.40	44.51	May.....	72.40	44.93	June.....	55.40	34.23
Mar.....	67.00	44.63	June.....	68.50	44.90	July.....	53.20	33.59
Apr.....	65.20	43.88	July.....	67.60	43.74	Aug.....	53.60	33.23
May.....	63.40	43.43	Aug.....	64.20	43.45	Sept.....	54.40	33.80
June.....	61.07	42.66	Sept.....	59.80	43.05	Oct.....	54.00	34.35
July.....	60.10	41.78	Oct.....	59.00	42.09	Nov.....	55.00	34.30
Aug.....	58.80	42.71	Nov.....	58.00	41.68	Dec.....	52.40	33.51
Sept.....	59.40	41.95	Dec.....	57.20	40.77	1892.		
Oct.....	59.60	41.77	1888.			Jan.....	50.40	32.98
Nov.....	57.80	41.18	Jan.....	56.20	40.37	Feb.....	49.40	32.82
Dec.....	61.20	40.76	Feb.....	60.40	39.77	Mar.....	48.60	32.01
1884.			Mar.....	58.00	37.27	Apr.....	47.80	31.86
Jan.....	71.40	39.74	Apr.....	52.60	37.22	May.....	47.40	31.87
Feb.....	66.00	40.43	May.....	52.10	38.62	June.....	43.20	31.91
Mar.....	64.60	38.54	June.....	43.20	36.48	July.....	47.00	32.12
Apr.....	68.60	39.15	July.....	47.40	35.67	Aug.....	47.80	33.20
May.....	67.40	38.82	Aug.....	46.80	36.40	Sept.....	43.20	33.06
June.....	68.00	37.89	Sept.....	43.20	37.50	Oct.....	50.00	32.72
July.....	67.00	37.61	Oct.....	49.40	38.22	Nov.....	50.20	32.52
Aug.....	63.80	36.30	Nov.....	52.20	38.52	Dec.....	51.80	34.24
Sept.....	56.00	37.86	Dec.....	54.20	37.32	1893.		
Oct.....	51.60	38.31	1889.			Jan.....	50.40	32.78
Nov.....	52.60	38.04	Jan.....	54.60	36.76	Feb.....	49.20	32.93
Dec.....	53.56	36.94	Feb.....	50.20	35.53	Mar.....	43.80	32.14
						Apr.....	48.00	31.72

a The lowest price in 1879 occurred in March, from which it advanced to the price of December. Owing to the accumulation of scrap in the world's market, a break occurred in 1890, for which year, however, exact prices were not obtainable. It will be seen that the advance in 1879, when there was no combination, was greater than in 1899 under the combination. The company ascribes the advance in each instance to the natural increase in prices, and request the prices for the whole period to be shown.

b Not reported.

MONTHLY PRICES OF BLACK MERCHANT PIPE AND SKELP (ITS PRINCIPAL RAW MATERIAL), 1879 TO 1899—Concluded.

Year and month.	Black merchant pipe, $\frac{1}{2}$ in. to 8 in., per ton.	Skelp (plates), per ton.	Year and month.	Black merchant pipe, $\frac{1}{2}$ in. to 8 in., per ton.	Skelp (plates), per ton.	Year and month.	Black merchant pipe, $\frac{1}{2}$ in. to 8 in., per ton.	Skelp (plates), per ton.
1893.			1895.			1897.		
May.....	\$46.40	\$32.00	Aug.....	\$45.20	\$28.75	Nov.....	\$35.62	\$20.91
June.....	47.40	32.00	Sept.....	47.80	30.67	Dec.....	36.09	19.62
July.....	51.20	32.16	Oct.....	48.10	29.96			
Aug.....	50.60	32.80	Nov.....	48.00	28.07	1898.		
Sept.....	46.40	30.52	Dec.....	48.50	28.17	Jan.....	35.10	19.77
Oct.....	47.20	30.27				Feb.....	33.75	19.87
Nov.....	47.00	29.59	1896.			Mar.....	33.90	19.70
Dec.....	46.50	27.55	Jan.....	41.00	26.02	Apr.....	27.97	19.86
			Feb.....	41.20	26.32	May.....	27.92	19.29
1894.			Mar.....	39.40	25.27	June.....	27.62	19.24
Jan.....	43.40	25.67	Apr.....	39.80	27.08	July.....	28.37	19.24
Feb.....	41.40	25.07	May.....	38.60	26.61	Aug.....	28.64	19.33
Mar.....	39.20	23.55	June.....	37.40	26.45	Sept.....	31.46	20.71
Apr.....	37.70	23.30	July.....	39.40	27.03	Oct.....	32.44	20.61
May.....	37.60	26.05	Aug.....	37.93	27.64	Nov.....	33.42	20.33
June.....	37.60	25.00	Sept.....	33.73	25.34	Dec.....	33.83	20.22
July.....	37.60	24.59	Oct.....	35.35	24.58			
Aug.....	39.00	24.50	Nov.....	34.74	23.67	1899.		
Sept.....	38.00	24.12	Dec.....	34.82	22.57	Jan.....	35.43	20.62
Oct.....	38.80	22.00				Feb.....	32.62	21.91
Nov.....	35.60	22.05	1897.			Mar.....	32.12	25.59
Dec.....	35.20	21.99	Jan.....	35.70	20.99	Apr.....	34.94	30.13
			Feb.....	36.09	21.18	May.....	36.18	33.92
1895.			Mar.....	33.80	19.57	June.....	40.48	37.86
Jan.....	36.20	22.19	Apr.....	32.54	19.43	July.....	47.84	42.65
Feb.....	34.50	22.43	May.....	32.21	18.92	Aug.....	64.07	46.00
Mar.....	36.80	22.40	June.....	32.26	18.83	Sept.....	66.80	44.22
Apr.....	36.60	21.84	July.....	33.58	18.83	Oct.....	77.09	45.82
May.....	35.40	22.58	Aug.....	33.67	18.93	Nov.....	79.76	42.82
June.....	36.40	25.61	Sept.....	34.98	19.82	Dec.....	81.65	37.29
July.....	39.00	27.95	Oct.....	35.58	21.63			

RELATIVE MONTHLY PRICES OF BLACK MERCHANT PIPE AND THE MATERIALS ENTERING INTO ITS MANUFACTURE, 1889 TO 1899.

[The relative prices shown for steel billets and coke are based on actual monthly prices shown in Tables II and VI. The combination controlling 90 per cent of this product was organized in May, 1899.]

Year and month.	Product—black merchant pipe, $\frac{1}{2}$ in. to 8 in.	Materials.			Year and month.	Product—black merchant pipe, $\frac{1}{2}$ in. to 8 in.	Materials.		
		Skelp (plates).	Steel billets at Pittsburg.	Coke, Connells-ville, f. o. b. at ovens.			Skelp (plates).	Steel billets at Pittsburg.	Coke, Connells-ville, f. o. b. at ovens.
1889.					1891.				
Jan.....	100.0	100.0	100.0	100.0	Jan.....	112.8	101.6	91.0	162.0
Feb.....	91.9	96.7	98.9	100.0	Feb.....	111.7	98.6	92.5	152.0
Mar.....	92.7	93.0	96.9	100.0	Mar.....	113.6	101.3	98.8	152.0
Apr.....	93.8	91.8	96.0	92.0	Apr.....	108.8	96.7	90.1	162.0
May.....	90.5	87.5	95.7	88.0	May.....	102.6	94.2	90.7	152.0
June.....	96.6	92.0	94.7	88.0	June.....	101.5	93.1	89.8	162.0
July.....	101.1	92.0	96.4	84.0	July.....	97.4	91.4	90.7	152.0
Aug.....	102.2	93.3	100.9	88.0	Aug.....	98.2	90.5	90.0	152.0
Sept.....	102.9	94.9	104.6	110.0	Sept.....	99.6	91.9	88.9	148.0
Oct.....	104.8	95.8	119.8	120.0	Oct.....	98.9	93.4	88.5	148.0
Nov.....	116.1	100.2	120.9	140.0	Nov.....	100.7	98.3	88.9	144.0
Dec.....	117.6	101.0	126.2	140.0	Dec.....	96.0	91.2	86.1	144.0
1890.					1892.				
Jan.....	121.6	103.7	180.3	140.0	Jan.....	92.3	89.7	88.9	152.0
Feb.....	112.1	99.8	125.4	140.0	Feb.....	90.5	87.9	86.6	152.0
Mar.....	113.2	101.4	111.6	172.0	Mar.....	89.0	87.1	81.8	152.0
Apr.....	115.5	103.2	100.9	172.0	Apr.....	87.5	85.3	81.1	162.0
May.....	115.8	101.9	98.0	172.0	May.....	86.8	85.3	79.7	144.0
June.....	113.6	99.3	107.6	172.0	June.....	88.3	86.8	81.7	144.0
July.....	112.5	99.0	109.2	172.0	July.....	86.1	87.4	83.5	140.0
Aug.....	112.1	102.8	107.6	172.0	Aug.....	87.5	90.3	84.7	140.0
Sept.....	112.8	106.4	107.1	172.0	Sept.....	88.3	89.9	84.7	140.0
Oct.....	115.8	104.5	102.8	172.0	Oct.....	91.6	89.0	84.7	140.0
Nov.....	113.2	106.6	97.3	172.0	Nov.....	91.9	88.5	84.7	140.0
Dec.....	114.7	106.0	96.3	172.0	Dec.....	94.9	96.1	84.7	140.0

RELATIVE MONTHLY PRICES OF BLACK MERCHANT PIPE AND THE MATERIALS ENTERING INTO ITS MANUFACTURE, 1899 TO 1899—Concluded.

Year and month.	Product-black merchant pipe, $\frac{1}{2}$ in. to 8 in.	Materials.			Year and month.	Product-black merchant pipe, $\frac{1}{2}$ in. to 8 in.	Materials.		
		Skelp (plates).	Steel billets at Pittsburg.	Coke, Connelville, f. o. b. at ovens.			Skelp (plates).	Steel billets at Pittsburg.	Coke, Connelville, f. o. b. at ovens.
1893.					1896.				
Jan.....	92.3	89.2	76.7	152.0	July.....	72.2	73.5	67.0	150.0
Feb.....	90.1	87.9	76.9	152.0	Aug.....	69.5	75.2	66.7	150.0
Mar.....	89.4	87.4	80.4	152.0	Sept.....	61.8	68.9	70.2	150.0
Apr.....	87.9	86.3	79.8	136.0	Oct.....	64.7	66.9	70.2	150.0
May.....	85.0	87.1	77.1	128.0	Nov.....	63.6	64.4	71.1	150.0
June.....	86.8	87.1	77.2	120.0	Dec.....	63.8	61.4	62.2	150.0
July.....	93.8	87.5	74.9	116.0					
Aug.....	92.7	89.2	72.7	100.0	1897.				
Sept.....	85.0	83.0	68.7	96.0	Jan.....	65.4	57.1	54.8	150.0
Oct.....	86.4	82.3	64.2	96.0	Feb.....	66.1	57.6	54.2	150.0
Nov.....	86.1	80.5	61.8	88.0	Mar.....	61.9	53.2	54.9	130.0
Dec.....	85.2	74.9	59.4	84.0	Apr.....	59.6	52.9	51.9	124.0
					May.....	59.0	51.5	49.1	112.0
1894.					June.....	59.1	51.2	50.0	120.0
Jan.....	79.5	69.8	57.3	78.0	July.....	61.5	51.2	49.8	120.0
Feb.....	75.8	68.2	56.0	76.0	Aug.....	61.7	51.5	49.8	120.0
Mar.....	71.8	64.1	55.3	80.0	Sept.....	64.1	53.9	55.5	116.0
Apr.....	69.0	63.4	55.8	73.6	Oct.....	65.2	58.8	58.5	130.0
May.....	68.9	70.9	64.0	73.6	Nov.....	65.2	56.9	55.4	140.0
June.....	68.9	68.0	64.4	80.0	Dec.....	66.1	53.4	53.3	140.0
July.....	68.9	66.9	64.0	80.0					
Aug.....	71.4	66.6	61.0	160.0	1898.				
Sept.....	69.6	65.6	61.1	112.0	Jan.....	64.3	53.8	53.1	140.0
Oct.....	71.1	59.8	56.9	80.0	Feb.....	61.8	54.1	53.6	140.0
Nov.....	65.2	60.0	55.4	80.8	Mar.....	62.1	53.6	54.2	140.0
Dec.....	64.5	59.8	53.8	80.0	Apr.....	51.2	54.0	53.6	140.0
					May.....	51.1	52.5	52.8	140.0
1895.					June.....	50.6	52.3	52.1	140.0
Jan.....	66.3	60.4	53.0	80.0	July.....	52.0	52.3	51.6	140.0
Feb.....	63.2	61.0	53.2	80.0	Aug.....	52.5	52.6	56.4	140.0
Mar.....	67.4	60.9	52.8	80.0	Sept.....	57.6	56.3	56.9	140.0
Apr.....	67.0	59.4	54.9	108.0	Oct.....	59.4	56.6	55.3	120.0
May.....	64.8	61.4	58.0	108.0	Nov.....	61.2	56.3	53.6	120.0
June.....	66.7	69.7	66.3	108.0	Dec.....	62.0	55.0	56.2	128.0
July.....	71.4	76.0	73.8	108.0					
Aug.....	82.8	78.2	77.3	108.0	1899.				
Sept.....	87.5	83.4	85.3	108.0	Jan.....	64.9	56.1	59.1	123.0
Oct.....	88.1	81.5	77.9	128.0	Feb.....	59.7	59.6	64.0	123.0
Nov.....	87.9	76.4	63.0	128.0	Mar.....	58.8	69.6	86.4	140.0
Dec.....	88.8	76.6	60.3	128.0	Apr.....	64.0	82.0	90.2	140.0
					May.....	66.2	92.3	95.1	164.0
1896.					June.....	74.1	103.0	107.0	176.0
Jan.....	75.1	70.8	59.7	150.0	July.....	87.6	116.0	117.8	170.0
Feb.....	75.5	71.6	61.8	150.0	Aug.....	117.3	125.1	126.7	200.0
Mar.....	72.2	68.7	60.8	150.0	Sept.....	122.3	120.3	136.5	210.0
Apr.....	72.9	73.7	69.5	150.0	Oct.....	141.2	124.6	120.0	220.0
May.....	70.7	72.4	69.3	150.0	Nov.....	148.1	116.5	129.8	230.0
June.....	68.5	72.0	68.0	150.0	Dec.....	149.5	101.4	137.8	230.0

The process of manufacture of iron and steel is, on the whole, so complicated that it would require special information to interpret accurately the effects of the combinations as shown by a study of the prices. In one or two instances, however, certain specific effects can be seen without difficulty. It will be noticed that during the latter half of the year 1895, and during most of the year 1896, there was a very decided increase in the prices of wire nails and of cut nails as compared with that of steel billets or of finished steel of other kinds. Especially is this true during the year 1896. Although there was an increase during part of this time in the price of steel billets, and also in the price of various kinds of wire, the very high price of nails during the latter part of 1896 does not correspond with these other changes,

but remained very high when the price of steel billets and of other steel products had begun to fall. There can be no doubt that this increase in the price of wire nails was due to the wire-nail pool, which was formed in 1895, and which finally went to pieces in the latter part of 1896.

During the year 1899 there was again a very decided increase in the prices of all steel products, both raw materials, such as steel billets, and finished products, such as nails, barbed wire, and smooth wire. A study of the prices of some of these products, where the raw material is so directly connected with the finished product that there can be little question of complications entering into the methods of manufacture, will show that during the middle of the year 1899 the price of the finished product increased more than proportionately to that of the raw materials. One of the chief causes of the increase in prices of iron and steel has been the enormous demand, and this should be borne in mind in any study of these prices. Certain combinations organized in the latter part of 1898 and in the earlier part of 1899 control a large proportion of the products—wire nails, barbed wire, and one or two other smaller products—the proportion amounting in some instances to more than 90 per cent. It would appear here that the combination, while not being the chief factor in the increase of the price of the product, that being rather the increase in the price of the raw materials, and the fact that the demand for all iron and steel products has been in excess of the supply, has, nevertheless, been able to take advantage of the circumstances so as to increase the price of the finished product more than proportionally to that of the raw material, thus increasing the margin and the consequent profits to the combination. The time, of course, has been altogether too short to determine what these effects of consolidation may be in the long run, but so far as the tables go they seem to show that temporarily, at any rate, some of these combinations have been enabled to take advantage of the circumstances and to increase considerably their profits.

TOBACCO.—The tables showing the prices of tobacco of various kinds, both finished product and raw material, do not go back beyond the period of the organization of the American Tobacco Company in 1890. It is, in consequence, impossible to compare prices before and after. A study of the tables shows that the price of cheroots and cigarettes has decreased more rapidly than has the price of the raw material. As to smoking tobacco it is seen that an increase in price is shown for both the finished product and the raw material, the price of the raw material having increased more rapidly than has the price of the finished product.

MONTHLY PRICES OF ONE LEADING BRAND EACH OF CHEROOTS, CIGARETTES, AND SMOKING TOBACCO, AND THE MATERIAL ENTERING INTO THE MANUFACTURE OF EACH, AND THE INTERNAL REVENUE TAX, 1890 TO 1899.

[The prices shown are from the books of the combination. The combination controlling the greater proportion of these products was organized in 1890.]

Year and month.	Cheroots.			Cigarettes.			Smoking tobacco.		
	Product—less internal-revenue tax, per 1,000.	Material—leaf to-bacco, per pound.	Internal-revenue tax per 1,000.	Product—less internal-revenue tax, per 1,000.	Material—leaf to-bacco, per pound.	Internal-revenue tax per 1,000.	Product—less internal-revenue tax, per pound.	Material—leaf tobacco, per pound.	Internal-revenue tax per pound.
1890.									
Jan.....	\$9.50	(a)	\$3.00	\$3.00	(a)	\$0.50	\$0.16	(a)	\$0.08
Feb.....	9.50	(a)	3.00	3.00	(a)	.50	.16	(a)	.08
Mar.....	9.50	(a)	3.00	3.00	(a)	.50	.16	(a)	.08
Apr.....	9.50	(a)	3.00	3.00	(a)	.50	.16	(a)	.08
May.....	9.50	(a)	3.00	3.00	(a)	.50	.16	(a)	.08
June.....	9.50	(a)	3.00	3.00	(a)	.50	.16	(a)	.08
July.....	9.50	(a)	3.00	3.00	(a)	.50	.16	(a)	.08
Aug.....	9.50	(a)	3.00	3.00	(a)	.50	.16	(a)	.08
Sept.....	9.50	(a)	3.00	3.00	(a)	.50	.16	(a)	.08
Oct.....	9.50	(a)	3.00	3.00	(a)	.50	.16	(a)	b .06
Nov.....	9.50	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
Dec.....	9.50	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
1891.									
Jan.....	9.50	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
Feb.....	9.50	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
Mar.....	9.50	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
Apr.....	9.50	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
May.....	9.25	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
June.....	9.25	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
July.....	9.25	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
Aug.....	9.25	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
Sept.....	9.25	(a)	3.00	3.00	(a)	.50	.18	(a)	.06
Oct.....	9.25	(a)	3.00	2.70	(a)	.50	.18	(a)	.06
Nov.....	9.25	(a)	3.00	2.70	(a)	.50	.18	(a)	.06
Dec.....	9.25	(a)	3.00	2.70	(a)	.50	.18	(a)	.06
1892.									
Jan.....	9.25	(a)	3.00	2.70	(a)	.50	.18	(a)	.06
Feb.....	9.25	(a)	3.00	3.30	(a)	.50	.18	(a)	.06
Mar.....	9.25	(a)	3.00	3.30	(a)	.50	.18	(a)	.06
Apr.....	9.25	(a)	3.00	3.30	(a)	.50	.18	(a)	.06
May.....	9.25	(a)	3.00	2.95	(a)	.50	.18	(a)	.06
June.....	9.25	(a)	3.00	2.95	(a)	.50	.18	(a)	.06
July.....	9.25	(a)	3.00	2.95	(a)	.50	.18	(a)	.06
Aug.....	9.25	(a)	3.00	2.95	(a)	.50	.18	(a)	.06
Sept.....	9.25	(a)	3.00	2.95	(a)	.50	.18	(a)	.06
Oct.....	9.25	(a)	3.00	2.95	(a)	.50	.18	(a)	.06
Nov.....	9.25	(a)	3.00	2.95	(a)	.50	.18	(a)	.06
Dec.....	9.25	(a)	3.00	2.95	(a)	.50	.18	(a)	.06
1893.									
Jan.....	9.25	\$0.1610	3.00	2.95	(a)	.50	.19	(a)	.06
Feb.....	9.25	.1833	3.00	2.95	(a)	.50	.19	(a)	.06
Mar.....	9.25	.1527	3.00	2.95	(a)	.50	.19	(a)	.06
Apr.....	9.25	.1661	3.00	2.95	(a)	.50	.19	(a)	.06
May.....	9.25	.1572	3.00	2.95	(a)	.50	.19	(a)	.06
June.....	9.25	.1496	3.00	2.95	(a)	.50	.19	(a)	.06
July.....	9.25	.1406	3.00	2.95	(a)	.50	.19	(a)	.06
Aug.....	9.25	.1444	3.00	2.95	(a)	.50	.19	(a)	.06
Sept.....	9.25	.1516	3.00	2.95	(a)	.50	.19	(a)	.06
Oct.....	9.25	.1367	3.00	2.95	(a)	.50	.19	(a)	.06
Nov.....	9.25	.1477	3.00	2.95	(a)	.50	.19	(a)	.06
Dec.....	9.25	.1339	3.00	2.95	c \$0.1028	.50	.19	c \$0.0222	.06
1894.									
Jan.....	9.25	.1472	3.00	2.95	(a)	.50	.19	(a)	.06
Feb.....	9.25	.1483	3.00	2.95	(a)	.50	.19	(a)	.06
Mar.....	9.25	.1538	3.00	2.95	(a)	.50	.19	(a)	.06
Apr.....	9.25	.1582	3.00	2.95	(a)	.50	.19	(a)	.06
May.....	9.25	.1549	3.00	2.95	(a)	.50	.19	(a)	.06
June.....	9.25	.1554	3.00	2.95	(a)	.50	.19	(a)	.06
July.....	9.25	.1578	3.00	2.95	(a)	.50	.19	(a)	.06
Aug.....	9.25	.1572	3.00	2.95	(a)	.50	.19	(a)	.06
Sept.....	9.25	.1540	3.00	2.95	(a)	.50	.19	(a)	.06
Oct.....	9.25	.1572	3.00	2.95	(a)	.50	.19	(a)	.06
Nov.....	9.25	.1572	3.00	2.95	(a)	.50	.19	(a)	.06
Dec.....	9.25	.1677	3.00	2.92	c .1141	.50	.19	c .0618	.06

a Not reported.

b Decreased by act of Congress of October 1, 1890.

c Average for the year; monthly prices not reported.

MONTHLY PRICES OF ONE LEADING BRAND EACH OF CHEROOTS, CIGARETTES, AND SMOKING TOBACCO, AND THE MATERIAL ENTERING INTO THE MANUFACTURE OF EACH, AND THE INTERNAL REVENUE TAX, 1890 TO 1899—Concluded.

Year and month.	Cheroots.			Cigarettes.			Smoking tobacco.		
	Product—less internal-revenue tax, per 1,000.	Material—leaf to-bacco, per pound.	Internal-revenue tax per 1,000.	Product—less internal-revenue tax, per 1,000.	Material—leaf to-bacco, per pound.	Internal-revenue tax per 1,000.	Product—less internal-revenue tax, per pound.	Material—leaf tobacco, per pound.	Internal-revenue tax per pound.
1896.									
Jan.....	\$9.25	\$0.1499	\$3.00	\$2.95	(a)	\$0.50	\$0.19	(a)	\$0.06
Feb.....	9.25	.1477	3.00	2.95	(a)	.50	.19	(a)	.06
Mar.....	9.25	.1428	3.00	2.95	(a)	.50	.19	(a)	.06
Apr.....	9.25	.1422	3.00	2.95	(a)	.50	.19	(a)	.06
May.....	9.25	.1405	3.00	2.95	(a)	.50	.19	(a)	.06
June.....	9.25	.1462	3.00	2.95	(a)	.50	.19	(a)	.06
July.....	9.25	.1355	3.00	2.95	(a)	.50	.19	(a)	.06
Aug.....	9.25	.1483	3.00	2.95	(a)	.50	.19	(a)	.06
Sept.....	9.25	.1549	3.00	2.96	\$0.1185	.50	.19	\$0.0320	.06
Oct.....	9.25	.1543	3.00	2.92	.1237	.50	.19	.0333	.06
Nov.....	9.25	.1594	3.00	2.92	.1219	.50	.19	.0336	.06
Dec.....	9.25	.1672	3.00	2.92	.1223	.50	.19	.0336	.06
1896.									
Jan.....	9.25	.1617	3.00	2.92	.1218	.50	.19	.0335	.06
Feb.....	9.25	.1384	3.00	2.92	.1220	.50	.19	.0337	.06
Mar.....	9.25	.1344	3.00	2.92	.1209	.50	.19	.0339	.06
Apr.....	9.25	.1322	3.00	2.92	.1187	.50	.19	.0338	.06
May.....	9.25	.1317	3.00	2.92	.1110	.50	.19	.0335	.06
June.....	9.25	.1305	3.00	2.92	.1087	.50	.19	.0335	.06
July.....	9.25	.1311	3.00	2.92	.1091	.50	.19	.0334	.06
Aug.....	9.25	.1272	3.00	2.92	.1090	.50	.19	.0334	.06
Sept.....	9.25	.1250	3.00	2.92	.1042	.50	.19	.0307	.06
Oct.....	9.25	.1277	3.00	2.92	.1043	.50	.19	.0311	.06
Nov.....	9.25	.1250	3.00	2.92	.1065	.50	.19	.0311	.06
Dec.....	9.25	.1766	3.00	2.92	.1076	.50	.19	.0312	.06
1897.									
Jan.....	9.25	.1328	3.00	2.92	.1089	.50	.20	.0313	.06
Feb.....	9.25	.1384	3.00	2.92	.1083	.50	.20	.0316	.06
Mar.....	9.25	.1317	3.00	2.92	.1077	.50	.20	.0317	.06
Apr.....	9.25	.1211	3.00	3.30	.1071	.50	.20	.0317	.06
May.....	9.12 ^b	.1206	3.00	2.92	.1033	.50	.20	.0318	.06
June.....	9.00	.1211	3.00	2.92	.1058	.50	.20	.0317	.06
July.....	9.00	.1200	3.00	2.96	.1057	b .50	.20	.0317	.06
Aug.....	9.00	.1177	3.00	2.71	.1015	1.00	.20	.0317	.06
Sept.....	9.00	.1239	3.00	2.42	.1034	1.00	.20	.0352	.06
Oct.....	9.00	.1222	3.00	2.42	.1052	1.00	.20	.0386	.06
Nov.....	9.00	.1228	3.00	2.42	.1058	1.00	.20	.0414	.06
Dec.....	9.00	.1272	3.00	2.50	.1068	1.00	.20	.0425	.06
1898.									
Jan.....	9.00	.1339	3.00	2.70	.1064	1.00	.20	.0431	.06
Feb.....	9.00	.1288	3.00	2.70	.1063	1.00	.20	.0438	.06
Mar.....	9.00	.1299	3.00	2.70	.1063	1.00	.20	.0448	.06
Apr.....	9.00	.1322	3.00	2.70	.1062	1.00	.20	.0459	.06
May.....	9.00	.1328	3.00	2.70	.1061	1.00	.20	.0466	.06
June.....	8.32 ^b	.1333	c 3.00	2.45	.1061	c 1.00	.20	.0470	c .06
July.....	7.65	.1305	3.60	2.20	.1062	1.50	.22	.0473	.12
Aug.....	7.65	.1333	3.60	2.20	.1061	1.50	.22	.0472	.12
Sept.....	7.65	.1378	3.60	2.20	.1055	1.50	.22	.0508	.12
Oct.....	7.65	.1395	3.60	2.20	.1043	1.50	.22	.0502	.12
Nov.....	7.65	.1488	3.60	2.20	.1040	1.50	.22	.0498	.12
Dec.....	7.65	.1538	3.60	2.20	.1047	1.50	.22	.0498	.12
1899.									
Jan.....	7.65	.1428	3.60	2.20	.1051	1.50	.22	.0498	.12
Feb.....	7.65	.1417	3.60	2.20	.1052	1.50	.22	.0498	.12
Mar.....	7.65	.1217	3.60	2.20	.1053	1.50	.22	.0496	.12
Apr.....	7.65	.1367	3.60	2.20	.1053	1.50	.22	.0496	.12
May.....	7.65	.1244	3.60	2.20	.1053	1.50	.22	.0496	.12
June.....	7.65	.1177	3.60	2.20	.1054	1.50	.22	.0496	.12
July.....	7.65	.1200	3.60	2.20	.1054	1.50	.23	.0496	.12
Aug.....	7.65	.1817	3.60	2.20	.1054	1.50	.23	.0496	.12
Sept.....	7.65	.1277	3.60	2.20	.1026	1.50	.23	.0522	.12
Oct.....	7.65	.1350	3.60	2.20	.1032	1.50	.23	.0536	.12
Nov.....	7.65	.1362	3.60	2.20	.1023	1.50	.23	.0542	.12
Dec.....	7.65	.1516	3.60	2.20	.1024	1.50	.23	.0544	.12

a Not reported.

b Increased by act of Congress of July 24, 1897.

c Increased by act of Congress of June 13, 1898.

MONTHLY PRICES OF LOOSE TOBACCO AT DANVILLE, VA., 1890 TO 1899.

Year and month.	Price per pound.	Year and month.	Price per pound.	Year and month.	Price per pound.
1890.		1893.		1896.	
January	\$0.1359	May	\$0.0792	September	\$0.0751
February	.1390	June	.0751	October	.0711
March	.1280	July	.0712	November	.0696
April	.1408	August	.0659	December	.0629
May	.1497	September	.0729	1897.	
June	.1589	October	.0719	January	.0668
July	.1507	November	.0721	February	.0663
August	.1201	December	.0636	March	.0654
September	.1098	1894.		April	.0644
October	.1162	January	.0635	May	.0635
November	.1056	February	.0638	June	.0645
December	.1001	March	.0629	July	.0648
1891.		April	.0677	August	.0626
January	.1205	May	.0600	September	.0765
February	.1162	June	.0714	October	.0748
March	.1188	July	.0607	November	.0672
April	.1159	August	.0580	December	.0747
May	.1268	September	.0725	1898.	
June	.1285	October	.0815	January	.0854
July	.1804	November	.0794	February	.0872
August	.1184	December	.0693	March	.0762
September	.1108	1895.		April	.0751
October	.1088	January	.0765	May	.0829
November	.0983	February	.0947	June	.0887
December	.0798	March	.0782	July	.0834
1892.		April	.0769	August	.0779
January	.0690	May	.0787	September	.0802
February	.0973	June	.0871	October	.0599
March	.0668	July	.0826	November	.0613
April	.0633	August	.0782	December	.0645
May	.0655	September	.0970	1899.	
June	.0909	October	.1019	January	.0700
July	.0864	November	.0821	February	.0681
August	.0892	December	.0823	March	.0679
September	.0890	1896.		April	.0719
October	.0866	January	.0905	May	.0704
November	.0740	February	.0827	June	.0718
December	.0796	March	.0805	July	.0640
1893.		April	.0709	August	.0661
January	.1018	May	.0676	September	.0685
February	.0908	June	.0676	October	.0614
March	.0862	July	.0821	November	.0650
April	.0862	August	.0675	December	.0640

PRODUCTS OF GRAIN AND FLOUR.—The following tables showing the products from grain of various kinds and from flour are to be interpreted in detail only by those who have been familiar with milling and manufacturing conditions in those lines, and with the condition of the trade for a period of years. For persons thus familiar with the conditions, the material is very complete.

MONTHLY PRICES OF CRACKERS AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1891 TO 1899.

[The prices shown for soda crackers, XXX, and ginger snaps, XXX, are from the Chicago Grocers' Criterion and those for soda crackers, standard, are from the books of the combination; the prices for flour and lard are from the Chicago Board of Trade. The combination controlling 60 per cent of these products was organized in February, 1898.]

Year and month.	Products.			Materials.			
	Soda crackers, XXX, per pound.	Soda crackers, standard, per pound.	Ginger snaps, XXX, per pound.	Flour, spring wheat, patent process, per barrel. (a)	Flour, good spring su-pers, low grade, per barrel. (a)	Flour, medium to choice winter wheat, per barrel. (a)	Lard, steam refined, per 100 pounds.
1891.							
January	\$0.06	\$0.06½	\$0.06½	\$4.68	\$2.30	\$4.41	\$5.79
February	.06	.06½	.06½	4.75	2.35	4.47	5.65
March	.06	.06½	.06½	4.83	2.35	4.45	6.13
April	.06	.06½	.06½	5.12	2.54	4.67	6.73
May	.06	.06½	.06½	5.33	2.65	4.85	6.46
June	.06	.06½	.06½	5.04	2.65	4.68	6.15
July	.06	.06½	.06½	4.92	2.63	4.38	6.23
August	.06	.06½	.06½	5.11	2.75	4.31	6.57
September	.06	.06½	.06½	5.06	2.91	4.40	6.86
October	.06	.06½	.06½	4.85	2.80	4.38	6.43
November	.06½	.06½	.06½	4.80	2.73	4.37	6.14
December	.06½	.06½	.06½	4.71	2.65	4.34	6.04
1892.							
January	.06	.06	.06½	4.58	2.42	4.28	6.27
February	.06	.06	.06½	4.46	1.98	4.27	6.47
March	.06	.06	.06	4.46	1.96	4.26	6.32
April	.06	.06	.06½	4.27	1.95	4.08	6.21
May	.06	.06	.06	4.35	1.95	4.07	6.26
June	.06	.06	.06½	4.37	1.92	4.07	6.45
July	.06	.06	.06	4.30	1.81	3.89	7.16
August	.06	.06	.06½	4.25	1.75	3.62	7.80
September	.06	.06	.06	4.18	1.76	3.53	7.45
October	.06	.06	.06½	4.04	1.72	3.39	8.35
November	.06	.05	.06½	3.94	1.69	3.30	9.27
December	.06	.05	.06½	3.92	1.55	3.30	9.91
1893.							
January	.06	.05	.06½	3.98	1.48	3.33	10.87
February	.06	.05	.06½	3.92	1.47	3.33	12.33
March	.06	.05	.06½	3.92	1.58	3.28	12.29
April	.06	.05	.06½	3.85	1.50	3.25	10.01
May	.06	.05	.06½	3.94	1.48	3.15	10.49
June	.06	.06	.06½	3.79	1.50	3.08	9.88
July	.06	.06	.06½	3.75	1.55	2.98	9.70
August	.06	.06	.06½	3.75	1.55	2.90	8.19
September	.06	.06	.06½	3.75	1.55	2.95	8.73
October	.06	.06	.06½	3.73	1.55	2.95	9.73
November	.06	.06	.06½	3.62	1.55	2.90	9.11
December	.06	.06	.06½	3.49	1.55	2.90	8.14
1894.							
January	.06	.06	.06½	3.58	1.55	2.87	8.01
February	.06	.06	.06½	3.44	1.52	2.75	7.45
March	.06	.06	.06½	3.40	1.53	2.53	6.95
April	.06	.06	.06½	3.36	1.50	2.59	7.48
May	.06	.06	.06½	3.32	1.53	2.53	7.39
June	.06	.06	.06½	3.34	1.55	2.50	6.70
July	.06	.06	.06½	3.35	1.55	3.50	6.31
August	.06	.06	.06½	3.35	1.64	3.44	7.24
September	.06	.06	.06½	3.35	1.69	2.39	8.56
October	.06½	.06	.06	3.25	1.75	2.37	7.49
November	.06½	.06½	.06	3.25	1.76	2.33	6.99
December	.06½	.06½	.06	3.35	1.76	2.42	6.73

a The prices given are the averages of highest and lowest prices for each month.

MONTHLY PRICES OF CRACKERS AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1891 TO 1899—Concluded.

Year and month.	Products.			Materials.			
	Soda crackers, XXX, per pound.	Soda crackers, standard, per pound.	Ginger snaps, XXX, per pound.	Flour, spring wheat, patent process, per barrel. (a)	Flour, good spring super, low grade, per barrel. (a)	Flour, medium to choice winter wheat, per barrel. (a)	Lard, steam refined, per 100 pounds.
1895.							
January	\$0.04½	\$0.05	\$0.07	\$3.30	\$1.75	\$2.42	\$6.68
February	.04½	.05	.07	3.26	1.75	2.37	6.45
March	.04½	.05	.07	3.30	1.75	2.47	6.67
April	.04½	.05	.07	3.38	1.76	2.60	6.81
May	.05½	.05½	.07½	3.72	1.96	3.20	6.62
June	.05½	.05½	.08	4.11	2.13	3.65	6.50
July	.05½	.05½	.08	4.02	1.94	3.31	6.37
August	.05½	.05½	.08	3.68	1.88	3.25	6.00
September	.05½	.05½	.08	3.45	1.82	3.05	5.85
October	.05½	.05½	.08	3.82	1.79	3.04	5.86
November	.05½	.05½	.08	3.24	1.66	3.05	5.46
December	.05½	.05½	.08	3.13	1.54	3.07	5.28
1896.							
January	.05½	.05½	.08	3.19	1.50	3.13	5.52
February	.05½	.05½	.08	3.24	1.50	3.17	5.62
March	.05½	.05½	.08	3.26	1.50	3.27	5.26
April	.05½	.05½	.08	3.44	1.50	3.37	4.98
May	.05½	.05½	.08	3.51	1.48	3.34	4.62
June	.05½	.05½	.08	3.57	1.48	3.10	4.06
July	.05½	.05½	.08	3.41	1.46	3.02	3.59
August	.05½	.05½	.08	3.20	1.35	3.00	3.23
September	.05½	.05½	.08	3.42	1.36	3.12	3.40
October	.05½	.05½	.08	4.01	1.47	3.48	4.18
November	.05½	.05½	.08	4.50	1.60	4.10	3.99
December	.06	.06	.08	4.47	1.78	4.40	4.30
1897.							
January	.06	.06	.08	4.27	1.70	4.32	3.90
February	.05½	.05½	.07	4.13	1.57	4.15	3.85
March	.05½	.05½	.07	4.05	1.48	4.10	4.13
April	.05½	.05½	.07	3.98	1.47	4.09	4.17
May	.05½	.05½	.07	4.09	1.47	4.44	3.92
June	.05½	.05½	.07	3.85	1.44	4.05	3.60
July	.05½	.05½	.07	3.93	1.44	3.96	4.06
August	.05½	.05½	.07	4.65	1.74	4.33	4.47
September	.05½	.05½	.07	5.28	2.00	4.78	4.61
October	.05½	.05½	.07	4.89	1.96	4.68	4.37
November	.05½	.05½	.07	4.75	1.78	4.44	4.23
December	.06	.06	.08	4.61	1.75	4.30	4.33
1898.							
January	.06½	.06½	.08	4.59	1.67	4.33	4.72
February	.06½	.06½	.08½	4.84	1.77	4.45	5.02
March	.06½	.06½	.08	4.89	1.95	4.40	5.19
April	.06½	.06½	.08	5.12	2.04	4.49	5.28
May	.07	.07	.08	6.66	2.56	6.15	6.23
June	.07½	.07	.08½	5.19	2.12	4.90	5.87
July	.06½	.06½	.07½	4.48	1.62	3.96	5.46
August	.06½	.06½	.07½	4.17	1.52	3.36	5.20
September	.06½	.06½	.07½	3.53	1.50	3.11	4.91
October	.06½	.06	.07½	3.49	1.55	3.14	4.89
November	.06	.06	.07½	3.48	1.65	3.15	4.93
December	.06	.06	.07½	3.37	1.65	3.20	5.20
1899.							
January	.06	.06	.07½	3.46	1.68	3.40	5.50
February	.06	.06	.07½	3.55	1.65	3.50	5.54
March	.06	.06	.07½	3.47	1.52	3.30	5.28
April	.06	.06	.07½	3.45	1.48	3.19	5.21
May	.06	.06	.08	3.52	1.50	3.22	5.09
June	.06	.06	.07½	3.60	1.58	3.30	4.98
July	.06	.06	.07½	3.52	1.57	3.22	5.24
August	.06	.06	.07½	3.50	1.52	3.16	5.19
September	.06	.06	.07½	3.55	1.53	3.21	5.21
October	.06½	.06	.07½	3.55	1.62	3.29	5.41
November	.06½	.06	.07½	3.42	1.60	3.20	5.08
December	.06½	.06	.07½	3.38	1.62	3.10	5.26

a The prices given are the averages of highest and lowest prices for each month.

RELATIVE MONTHLY PRICES OF CRACKERS AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1891 TO 1899.

[The combination controlling 60 per cent of these products was organized in February, 1898.]

Year and month.	Products.			Materials.			
	Soda crackers, XXX.	Soda crackers, standard.	Ginger snaps, XXX.	Flour, spring wheat, patent process.	Flour, good spring supers, low grade.	Flour, medium to choice winter wheat.	Lard, steam refined.
1891.							
January.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
February.....	100.0	100.0	100.0	101.5	102.2	101.4	97.6
March.....	100.0	100.0	100.0	103.2	102.2	100.9	106.9
April.....	100.0	100.0	100.0	109.4	110.4	106.9	116.2
May.....	100.0	100.0	100.0	113.9	115.2	110.0	111.6
June.....	100.0	100.0	100.0	107.7	115.2	106.1	108.2
July.....	100.0	100.0	100.0	105.1	114.3	99.3	107.6
August.....	100.0	100.0	100.0	109.2	119.6	97.7	113.5
September.....	100.0	100.0	100.0	108.1	126.5	99.8	118.5
October.....	100.0	100.0	100.0	108.6	121.7	99.3	111.1
November.....	108.3	100.0	100.0	102.6	118.7	99.1	106.0
December.....	108.3	100.0	100.0	100.6	115.2	98.4	104.3
1892.							
January.....	100.0	92.3	100.0	97.9	105.2	97.1	108.3
February.....	100.0	92.3	100.0	95.3	86.1	96.8	111.7
March.....	100.0	92.3	100.0	95.3	85.2	96.6	109.2
April.....	100.0	92.3	100.0	91.2	84.8	92.5	107.3
May.....	100.0	92.3	100.0	92.9	84.8	92.3	108.1
June.....	100.0	92.3	100.0	93.4	88.5	92.3	111.4
July.....	100.0	92.3	100.0	91.9	78.7	88.2	123.7
August.....	100.0	92.3	100.0	90.8	76.1	82.1	134.7
September.....	100.0	92.3	100.0	89.3	76.5	80.0	128.7
October.....	100.0	92.3	100.0	86.3	74.8	76.9	144.2
November.....	100.0	76.9	100.0	84.2	73.5	74.8	160.1
December.....	100.0	76.9	100.0	83.8	67.4	74.8	171.2
1893.							
January.....	100.0	76.9	100.0	84.0	64.3	75.5	157.7
February.....	100.0	76.9	100.0	83.8	63.9	75.5	213.0
March.....	100.0	76.9	100.0	83.8	63.7	74.4	212.3
April.....	100.0	76.9	100.0	82.3	65.2	73.7	172.9
May.....	100.0	76.9	100.0	84.2	64.3	71.4	181.2
June.....	100.0	92.3	100.0	81.0	65.2	69.8	170.6
July.....	100.0	92.3	100.0	80.1	67.4	67.1	167.5
August.....	100.0	92.3	100.0	80.1	67.4	65.8	141.5
September.....	100.0	92.3	100.0	80.1	67.4	66.9	151.6
October.....	100.0	92.3	100.0	79.7	67.4	66.9	168.9
November.....	100.0	92.3	100.0	77.4	67.4	65.8	157.3
December.....	100.0	92.3	100.0	74.6	67.4	65.8	140.6
1894.							
January.....	100.0	92.3	100.0	75.4	67.4	65.1	138.3
February.....	100.0	92.3	100.0	73.5	66.1	62.4	123.7
March.....	100.0	92.3	100.0	72.6	66.5	58.0	120.0
April.....	100.0	92.3	100.0	71.8	65.2	58.7	129.2
May.....	100.0	92.3	100.0	70.9	66.5	58.0	125.9
June.....	100.0	92.3	100.0	71.4	67.4	56.7	115.7
July.....	100.0	92.3	100.0	71.6	67.4	56.7	117.6
August.....	100.0	92.3	100.0	71.6	71.3	55.3	125.0
September.....	100.0	92.3	100.0	71.6	73.5	54.2	147.8
October.....	91.7	92.3	94.1	69.4	76.1	53.7	129.4
November.....	91.7	84.6	94.1	70.1	78.1	54.0	120.7
December.....	91.7	84.6	94.1	71.6	76.1	54.9	116.2
1895.							
January.....	75.0	76.9	82.4	70.5	76.1	54.9	115.4
February.....	75.0	76.9	82.4	69.7	76.1	53.7	111.4
March.....	75.0	76.9	82.4	70.5	76.1	56.0	115.2
April.....	75.0	76.9	82.4	72.2	76.5	59.0	117.6
May.....	91.7	84.6	88.2	79.5	85.2	72.6	114.3
June.....	91.7	84.6	94.1	87.8	92.6	82.8	112.3
July.....	91.7	84.6	94.1	85.9	84.3	75.1	110.0
August.....	91.7	84.6	94.1	78.6	81.7	73.7	108.6
September.....	91.7	84.6	94.1	73.7	79.1	69.2	101.0
October.....	91.7	84.6	94.1	70.9	77.8	68.9	101.2
November.....	91.7	84.6	94.1	69.2	72.2	69.2	94.3
December.....	91.7	84.6	94.1	66.9	67.0	69.6	91.2

RELATIVE MONTHLY PRICES OF CRACKERS AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1891 TO 1899—Concluded.

Year and month.	Products.			Materials.			
	Soda crackers, XXX.	Soda crackers, standard.	Ginger snaps, XXX.	Flour, spring wheat, patent process.	Flour, good spring supers, low grade.	Flour, medium to choice winter wheat.	Lard, steam refined.
1896.							
January.....	91.7	84.6	94.1	68.2	65.2	71.0	95.3
February.....	91.7	84.6	94.1	69.2	65.2	71.9	95.3
March.....	91.7	84.6	94.1	69.7	65.2	74.1	90.8
April.....	91.7	84.6	94.1	73.5	65.2	76.4	86.0
May.....	91.7	84.6	94.1	75.0	64.3	75.7	78.1
June.....	91.7	84.6	94.1	76.3	64.3	70.3	70.1
July.....	91.7	84.6	94.1	72.9	63.5	68.5	62.0
August.....	91.7	84.6	94.1	68.4	58.7	68.0	55.8
September.....	91.7	84.6	94.1	73.1	59.1	70.7	58.7
October.....	91.7	84.6	94.1	85.7	63.9	78.9	72.2
November.....	91.7	84.6	94.1	96.2	69.6	93.0	68.9
December.....	100.0	92.3	94.1	96.5	77.4	99.8	74.3
1897.							
January.....	100.0	92.3	94.1	91.2	73.9	98.0	67.4
February.....	91.7	84.6	82.4	88.2	68.3	94.1	66.5
March.....	91.7	84.6	82.4	85.5	64.3	93.0	71.3
April.....	91.7	84.6	82.4	85.0	63.9	92.7	72.0
May.....	91.7	84.6	82.4	87.4	63.9	100.7	67.7
June.....	91.7	84.6	82.4	82.3	63.9	91.8	62.2
July.....	91.7	84.6	82.4	84.0	62.6	89.8	69.9
August.....	91.7	84.6	82.4	99.4	70.7	98.2	77.2
September.....	91.7	84.6	82.4	112.8	87.0	108.4	79.6
October.....	91.7	84.6	82.4	104.5	85.2	105.1	75.5
November.....	91.7	84.6	82.4	101.5	77.4	100.7	73.1
December.....	100.0	92.3	94.1	98.5	76.1	97.5	74.8
1898.							
January.....	108.3	100.0	94.1	98.1	72.6	98.2	81.5
February.....	108.3	100.0	100.0	103.4	77.0	100.9	86.7
March.....	108.3	100.0	94.1	104.5	84.8	99.8	89.6
April.....	108.3	100.0	94.1	109.4	88.7	101.8	91.2
May.....	116.7	107.7	94.1	142.8	111.3	139.5	107.6
June.....	125.0	107.7	100.0	110.9	92.2	111.1	101.4
July.....	108.3	100.0	88.2	95.7	70.4	89.8	94.3
August.....	108.3	96.2	88.2	89.1	66.1	76.2	89.8
September.....	104.2	96.2	88.2	75.4	65.2	70.5	84.8
October.....	104.2	92.3	88.2	74.6	67.4	71.2	84.5
November.....	100.0	92.3	88.2	74.4	71.7	71.4	85.1
December.....	100.0	92.3	88.2	72.0	71.7	72.6	89.8
1899.							
January.....	100.0	92.3	88.2	73.9	73.0	77.1	96.5
February.....	100.0	92.3	88.2	75.9	71.7	79.4	95.7
March.....	100.0	92.3	88.2	74.1	66.1	74.8	91.2
April.....	100.0	92.3	88.2	78.7	64.3	72.8	90.0
May.....	100.0	92.3	88.2	75.2	65.2	73.0	87.9
June.....	100.0	92.3	88.2	70.0	68.7	74.8	86.0
July.....	100.0	92.3	88.2	75.2	68.3	73.0	90.5
August.....	100.0	92.3	88.2	74.1	66.1	71.7	89.6
September.....	100.0	92.3	88.2	75.0	64.5	72.8	90.0
October.....	108.3	92.3	88.2	75.9	70.4	74.6	93.4
November.....	108.3	92.3	88.2	73.1	69.6	72.6	87.7
December.....	108.3	92.3	88.2	72.2	66.1	70.3	90.8

MONTHLY PRICES OF WHEAT AND RYE FLOUR AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1882 TO 1899.

[The prices shown are from the Chicago Board of Trade. The combination manufacturing a large quantity of these products was organized in June, 1891.]

Year and month.	Products.			Material—wheat, No. 2, cash (b), per bush. (a)	Product—rye flour, good to choice, per barrel. (a)	Material—rye, No. 2, in store, per bush. (a)
	Flour, spring wheat, patent process, per barrel. (a)	Flour, good spring supers, low grade, per barrel. (a)	Flour, medium to choice winter wheat, per barrel. (a)			
1882.						
January	\$7.88	\$4.13	\$6.88	\$1.30 ⁴	\$5.62 ⁴	\$0.9575
February	7.87	4.12	6.87	1.24 ⁴	5.48	.8825
March	7.68	4.03	6.59	1.29	5.13 ⁴	.8365
April	7.95	4.00	6.58	1.37	4.98	.8510
May	8.25	4.00	6.75	1.30 ⁴	4.81	.7862
June	8.25	4.00	6.66	1.30 ⁴	4.50	.7200
July	8.17	4.00	6.43	1.31	4.25	.7095
August	7.75	3.59	6.00	1.03	4.15 ⁴	.6745
September	7.35	3.38	5.38	1.02 ⁴	3.92 ⁴	.6055
October	6.88	3.25	5.00	.94 ⁴	3.75 ⁴	.5850
November	6.75	3.25	5.00	.93 ⁴	3.72 ⁴	.5695
December	6.42	3.25	5.00	.92 ⁴	3.72 ⁴	.5775
1883.						
January	6.59	3.00	5.21	.98 ⁴	3.76 ⁴	.6112
February	6.72	3.00	5.47	1.07 ⁴	3.82 ⁴	.6415
March	6.78	3.00	5.50	1.06 ⁴	3.75	.6220
April	6.94	3.00	5.50	1.05 ⁴	3.68 ⁴	.5855
May	7.00	3.13	5.59	1.11	3.51	.6380
June	6.90	3.02	5.58	1.06 ⁴	3.48	.6020
July	6.63	2.88	5.50	.99 ⁴	3.23	.5543
August	6.50	2.87	5.41	1.01 ⁴	3.18 ⁴	.5892
September	6.50	2.88	5.39	.95 ⁴	3.22 ⁴	.5605
October	6.50	2.87	5.38	.92 ⁴	3.20	.5487
November	6.47	2.88	5.39	.95 ⁴	3.20	.5650
December	6.13	2.87	5.28	.97 ⁴	3.25 ⁴	.5935
1884.						
January	6.01	2.75	5.52	.91 ⁴	3.19 ⁴	.5800
February	5.88	2.62	5.55	.93 ⁴	3.17	.5800
March	5.87	2.63	5.68	.86 ⁴	3.15	.5620
April	5.90	2.50	5.52	.85	3.15	.5662
May	6.00	2.50	5.73	.90	3.32 ⁴	.6160
June	5.90	2.50	5.49	.86 ⁴	3.40	.6383
July	5.72	2.50	5.29	.81 ⁴	3.35 ⁴	.6130
August	5.50	2.50	4.84	.79 ⁴	3.27 ⁴	.5845
September	5.00	2.38	4.28	.76 ⁴	3.20	.5418
October	5.00	2.25	4.23	.72 ⁴	3.19	.5387
November	4.75	2.13	3.83	.72 ⁴	3.11	.5050
December	4.25	2.12	3.75	.72 ⁴	3.06 ⁴	.5150
1885.						
January	4.76	2.20	4.30	.73 ⁴	3.52	.5900
February	4.82	2.27	4.30	.76 ⁴	3.92 ⁴	.6350
March	4.88	2.25	4.20	.76 ⁴	3.87 ⁴	.6400
April	5.28	2.41	4.78	.84 ⁴	3.74 ⁴	.6475
May	5.50	2.62	5.12	.88	3.86	.7100
June	5.40	2.68	5.13	.86 ⁴	3.87 ⁴	.6400
July	5.16	2.62	5.05	.87 ⁴	3.65	.5912
August	5.13	2.68	5.05	.83 ⁴	3.55	.5725
September	4.87	2.62	4.73	.81 ⁴	3.37 ⁴	.5788
October	5.24	2.58	4.81	.87 ⁴	3.50	.6075
November	5.20	2.57	4.80	.87 ⁴	3.50	.6150
December	5.20	2.58	4.75	.86 ⁴	3.50	.6050
1886.						
January	4.86	2.85	4.63	.80 ⁴	3.44	.5850
February	4.75	2.56	4.62	.79 ⁴	3.37 ⁴	.5850
March	4.75	2.62	4.59	.78 ⁴	3.37 ⁴	.5850
April	4.75	2.63	4.55	.76 ⁴	3.37 ⁴	.6075
May	4.70	2.44	4.37	.75 ⁴	3.37 ⁴	.6075
June	4.88	2.33	4.22	.74 ⁴	3.42	.5550
July	4.41	2.32	4.10	.76 ⁴	3.35	.5450
August	4.40	2.33	3.98	.76 ⁴	3.21	.5050
September	4.38	2.32	3.88	.74 ⁴	3.10	.4950
October	4.19	2.21	3.80	.72 ⁴	2.94	.4850
November	4.17	2.05	3.80	.74 ⁴	2.87 ⁴	.5175
December	4.36	2.20	3.90	.77 ⁴	3.00 ⁴	.5435

^a The prices given are the averages of highest and lowest prices for each month.

^b The kinds and grades of wheat from which the three grades of flour are made are not reported. Wheat No. 2, cash, has been placed in correlation, not as material proper, but as a fair representative of the changes in the price of wheat.

MONTHLY PRICES OF WHEAT AND RYE FLOUR AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1882 TO 1899—Continued.

Year and month.	Products.			Material— wheat, No. 2, cash (b), per bush. (a)	Product— rye flour, good to choice, per barrel. (a)	Material— rye, No. 2, in store, per bush. (a)
	Flour, spring wheat, pat- ent process, per barrel. (a)	Flour, good spring supers, low grade, per barrel. (a)	Flour, medium to choice win- ter wheat, per barrel. (a)			
1887.						
January	\$4.49	\$1.98	\$4.16	\$0.78½	\$3.00	\$0.5862
February	4.44	1.92	4.13	.75½	3.00	.5400
March	4.40	1.98	4.11	.76	2.95	.5425
April	4.37	1.92	4.09	.80½	2.95	.5600
May	4.45	1.98	4.13	.84½	2.95	.5612
June	4.47	1.92	4.14	.79½	2.95	.5350
July	4.31	1.95	4.03	.69½	2.95	.4807
August	4.19	1.94	3.91	.68½	2.90½	.4431
September	4.25	1.98	3.90	.69½	2.80	.4587
October	4.28	2.00	3.88	.70½	2.83	.4925
November	4.25	1.97	3.75	.74½	2.90	.5280
December	4.25	1.98	3.75	.77½	2.97½	.6035
1888.						
January	4.22	2.10	3.82	.77	2.96½	.6237
February	4.14	2.10	3.72	.75½	3.01½	.6050
March	4.10	2.10	3.65	.74	3.02½	.5900
April	4.14	2.10	3.65	.76½	3.00	.6200
May	4.21	2.10	3.68	.85½	3.09	.6637
June	4.55	2.10	3.60	.82½	3.17½	.5920
July	4.48	2.10	3.60	.82½	3.07½	.5100
August	4.38	2.10	3.75	.87½	3.06½	.4837
September	5.21	2.13	4.25	1.27½	2.95½	.5380
October	6.74	2.46	5.80	1.10½	3.70	.6818
November	6.63	2.38	5.70	1.08½	3.71½	.6400
December	6.39	2.17	5.42	1.01½	3.50½	.6114
1889.						
January	6.23	2.22	4.74	.97½	3.27½	.4783
February	6.20	2.17	4.73	1.00½	3.22½	.4618
March	6.20	2.11	4.79	1.00½	2.95½	.4275
April	5.73	1.97	4.57	.89	2.79½	.4237
May	5.23	1.90	4.15	.81½	3.13	.4050
June	5.17	1.93	4.08	.78½	2.59	.3962
July	5.43	2.02	4.25	.90½	2.75	.4262
August	5.12	2.03	3.90	.77½	2.73	.4275
September	4.81	1.98	3.89	.79½	2.69½	.4208
October	4.75	2.00	3.92	.80	2.65	.4162
November	4.64	1.85	3.85	.79½	2.68½	.4362
December	4.54	1.75	3.85	.78½	2.72½	.4479
1890.						
January	4.50	1.69	3.85	.76½	2.72½	.4542
February	4.44	1.67	3.78	.75½	2.72½	.4330
March	4.42	1.68	3.88	.78½	2.69½	.4388
April	4.62	1.82	4.05	.88½	2.67½	.4694
May	5.00	1.92	4.42	.94½	2.77½	.5302
June	4.84	1.85	4.41	.88½	2.80	.4945
July	4.68	1.80	4.28	.89½	2.72½	.4940
August	5.22	2.12	4.59	.98½	3.07½	.6050
September	5.50	2.17	4.79	1.00½	3.34	.6152
October	5.25	2.25	4.69	.99½	3.51½	.6437
November	4.92	2.25	4.45	.94½	3.68½	.6756
December	4.81	2.23	4.51	.90½	3.72½	.6887
1891.						
January	4.68	2.30	4.41	.91½	3.75	.6965
February	4.75	2.35	4.47	.95½	3.81	.7840
March	4.83	2.35	4.45	.98½	4.69	.8922
April	5.12	2.54	4.67	1.07½	4.80	.8925
May	5.33	2.65	4.86	1.03½	4.74	.8658
June	5.04	2.65	4.68	.96½	4.68½	.8130
July	4.92	2.63	4.88	.89½	4.56½	.7195
August	5.11	2.75	4.31	1.00½	4.88½	.8532
September	5.06	2.91	4.40	.95½	5.21½	.8805
October	4.85	2.80	4.88	.95½	4.93½	.8631
November	4.80	2.73	4.37	.94	4.92½	.9365
December	4.71	2.65	4.34	.91½	4.92½	.9037

a The prices given are the averages of highest and lowest prices for each month.

b The kinds and grades of wheat from which the three grades of flour are made are not reported. Wheat No. 2, cash, has been placed in correlation, not as material proper, but as a fair representative of the changes in the price of wheat.

MONTHLY PRICES OF WHEAT AND RYE FLOUR AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1882 TO 1899—Continued.

Year and month.	Products.			Material— wheat, No. 2, cash (b), per bush. (a)	Product— rye flour, good to choice, per barrel. (a)	Material— rye No. 2, in store, per bush. (a)
	Flour, spring wheat, pat- ent process, per barrel. (a)	Flour, good spring supers, low grade, per barrel. (a)	Flour, medium to choice win- ter wheat, per barrel. (a)			
1892.						
January	\$4.58	\$2.42	\$4.28	\$0.87½	\$4.82½	\$0.8392
February	4.46	1.98	4.27	.87½	4.70	.8231
March	4.46	1.96	4.26	.88½	4.45	.8270
April	4.27	1.95	4.08	.81	4.21	.7495
May	4.35	1.95	4.07	.82½	4.15	.7600
June	4.37	1.92	4.07	.82½	4.15	.7582
July	4.30	1.81	3.89	.78	3.89	.7015
August	4.25	1.75	3.62	.77	3.55	.6450
September	4.18	1.76	3.53	.73½	3.50	.5708
October	4.04	1.72	3.39	.72	3.46	.5431
November	3.94	1.69	3.30	.71½	3.25	.4975
December	3.92	1.55	3.30	.71	3.25	.4586
1893.						
January	3.93	1.48	3.33	.75½	3.22½	.5445
February	3.92	1.47	3.33	.73½	3.15	.5253
March	3.92	1.58	3.28	.76	2.95	.4925
April	3.85	1.50	3.25	.79½	2.87½	.5006
May	3.94	1.48	3.15	.72½	2.87½	.5545
June	3.79	1.50	3.08	.65	2.87½	.5096
July	3.75	1.55	2.96	.60½	2.83½	.4908
August	3.75	1.55	2.90	.56½	2.60	.4578
September	3.75	1.55	2.95	.66½	2.60	.4410
October	3.73	1.55	2.95	.68½	2.60	.4415
November	3.62	1.55	2.90	.60½	2.65	.4540
December	3.49	1.55	2.90	.61½	2.65	.4587
1894.						
January	3.53	1.55	2.87	.61½	2.51½	.4475
February	3.44	1.52	2.75	.57½	2.45	.4417
March	3.40	1.53	2.56	.57	2.45	.4650
April	3.36	1.50	2.59	.60½	2.45	.4875
May	3.32	1.53	2.56	.56½	2.45	.4532
June	3.34	1.55	2.50	.57	2.49	.4585
July	3.35	1.55	2.50	.54½	2.50	.4478
August	3.35	1.64	2.44	.58½	2.50	.4620
September	3.35	1.69	2.39	.52½	2.50	.4700
October	3.25	1.75	2.37	.51½	2.45	.4687
November	3.28	1.75	2.38	.53½	2.41	.4722
December	3.35	1.75	2.42	.54½	2.45	.4578
1895.						
January	3.30	1.75	2.42	.52	2.41½	.4925
February	3.25	1.75	2.37	.50½	2.43½	.5170
March	3.30	1.75	2.47	.53½	2.48	.5230
April	3.38	1.76	2.60	.58½	2.71½	.5794
May	3.72	1.96	3.20	.71	3.62½	.6495
June	4.11	2.13	3.65	.75	3.62½	.6458
July	4.02	1.94	3.31	.66½	3.21½	.4956
August	3.68	1.88	3.25	.63½	2.65	.4387
September	3.45	1.82	3.05	.58½	2.42½	.3894
October	3.32	1.79	3.04	.56½	2.37½	.3975
November	3.24	1.66	3.05	.57	2.37½	.3690
December	3.13	1.54	3.07	.56½	2.27½	.3440
1896.						
January	3.19	1.50	3.13	.62½	2.27½	.3660
February	3.24	1.50	3.17	.66½	2.27½	.3919
March	3.26	1.50	3.27	.65½	2.26½	.3725
April	3.44	1.50	3.37	.66½	2.22½	.3691
May	3.51	1.48	3.34	.62½	2.20½	.3573
June	3.57	1.48	3.10	.60½	2.14	.3225
July	3.41	1.46	3.02	.58½	2.05	.3056
August	3.20	1.35	3.00	.58	1.98½	.3013
September	3.42	1.36	3.12	.62½	1.96½	.3150
October	4.01	1.47	3.48	.78½	2.17	.3602
November	4.50	1.60	4.10	.82½	2.46½	.3900
December	4.47	1.78	4.40	.83½	2.68½	.3951

a The prices given are the averages of highest and lowest prices for each month.

b The kinds and grades of wheat from which the three grades of flour are made are not reported. Wheat No. 2, cash, has been placed in correlation, not as material proper, but as a fair representative of the changes in the price of wheat.

MONTHLY PRICES OF WHEAT AND RYE FLOUR AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1882 TO 1899—Concluded.

Year and month.	Products.			Material— wheat, No. 2, cash (b), per bush. (a)	Product— rye flour, good to choice, per barrel. (a)	Material— rye, No. 2, in store, per bush. (a)
	Flour, spring wheat, pat- ent process, per barrel. (a)	Flour, good spring supers, low grade, per barrel. (a)	Flour, medium to choice win- ter wheat, per barrel. (a)			
1897.						
January	\$4. 27	\$1. 70	\$4. 32	\$0. 77	\$2. 65	\$0. 3708
February	4. 13	1. 67	4. 15	. 74½	2. 31½	. 3590
March	4. 05	1. 48	4. 10	. 73½	2. 22½	. 3537
April	3. 98	1. 47	4. 09	. 72	2. 22½	. 3510
May	4. 09	1. 47	4. 44	. 72½	2. 30	. 3425
June	3. 85	1. 44	4. 05	. 70	2. 18	. 3337
July	3. 93	1. 44	3. 95	. 73½	2. 23	. 3627
August	4. 65	1. 74	4. 33	. 88	2. 55	. 4600
September	5. 28	2. 00	4. 78	. 92½	3. 30	. 4987
October	4. 89	1. 95	4. 68	. 90	2. 94½	. 4608
November	4. 75	1. 78	4. 44	. 92½	2. 97½	. 4747
December	4. 61	1. 75	4. 30	. 96	2. 82½	. 4640
1898.						
January	4. 59	1. 67	4. 33	. 99½	2. 70	. 4525
February	4. 84	1. 77	4. 45	1. 01½	2. 80	. 4853
March	4. 89	1. 95	4. 40	1. 03½	2. 85	. 4931
April	5. 12	2. 04	4. 49	1. 12½	2. 96½	. 5320
May	6. 66	2. 56	6. 15	1. 51	3. 78½	. 6624
June	5. 19	2. 12	4. 90	. 97½	2. 96½	. 4487
July	4. 48	1. 62	3. 95	. 76½	2. 60	. 4556
August	4. 17	1. 52	3. 36	. 70½	2. 51½	. 4378
September	3. 53	1. 50	3. 11	. 65½	2. 43	. 4543
October	3. 49	1. 55	3. 14	. 66½	2. 64	. 4916
November	3. 48	1. 65	3. 15	. 67	2. 78½	. 5131
December	3. 37	1. 65	3. 20	. 66½	2. 85	. 5875
1899.						
January	3. 46	1. 68	3. 40	. 71½	2. 97½	. 5594
February	3. 55	1. 65	3. 50	. 72½	3. 00	. 5677
March	3. 47	1. 52	3. 30	. 70½	2. 79	. 5387
April	3. 45	1. 48	3. 19	. 73½	2. 80	. 5565
May	3. 52	1. 50	3. 22	. 73½	2. 88	. 6012
June	3. 60	1. 58	3. 30	. 75½	2. 91½	. 5927
July	3. 52	1. 57	3. 22	. 72	2. 82½	. 5604
August	3. 50	1. 52	3. 16	. 71½	2. 68	. 5343
September	3. 55	1. 53	3. 21	. 72½	2. 79	. 5595
October	3. 55	1. 62	3. 29	. 71½	2. 91	. 5668
November	3. 42	1. 60	3. 20	. 68½	2. 83	. 5247
December	3. 38	1. 52	3. 10	. 66½	2. 79	. 5045

a The prices given are the averages of highest and lowest prices for each month.

b The kinds and grades of wheat from which the three grades of flour are made are not reported. Wheat No. 2, cash, has been placed in correlation, not as material proper, but as a fair representative of the changes in the price of wheat.

RELATIVE MONTHLY PRICES OF WHEAT AND RYE FLOUR AND THE MATERIALS
ENTERING INTO THEIR MANUFACTURE, 1882 TO 1899.

[The combination manufacturing a large quantity of these products was organized in June, 1891.]

Year and month.	Products.			Material— wheat, No. 2, cash.	Product— rye flour, good to choice.	Material— rye, No. 2, in store.
	Flour, spring wheat, patent process.	Flour, good spring su- pers, low grade.	Flour, me- dium to choice winter wheat.			
1882.						
January	100.0	100.0	100.0	100.0	100.0	100.0
February	99.9	99.8	99.9	96.0	97.4	92.2
March	97.5	97.6	95.8	98.7	91.3	87.4
April	100.9	96.9	95.6	104.8	87.6	88.4
May	104.7	96.9	98.1	100.0	85.5	82.1
June	104.7	96.9	96.8	99.6	80.0	75.2
July	103.7	96.9	93.5	100.2	75.6	74.1
August	98.4	86.9	87.2	78.8	73.9	70.4
September	93.3	81.8	78.2	78.4	69.8	63.2
October	87.3	78.7	72.7	72.2	66.8	61.1
November	85.7	78.7	72.7	71.3	66.2	59.5
December	81.5	78.7	72.7	70.7	66.2	60.3
1883.						
January	83.6	72.6	75.7	75.5	66.9	63.8
February	85.3	72.6	79.5	82.3	68.0	67.0
March	86.0	72.6	79.9	81.7	66.7	65.0
April	88.1	72.6	79.9	80.6	64.6	61.2
May	88.8	75.8	81.3	84.9	62.4	66.6
June	87.6	78.1	80.4	81.2	61.9	62.9
July	84.1	69.7	79.9	76.3	57.4	57.9
August	82.5	69.5	78.6	77.8	56.6	61.5
September	82.5	69.7	78.3	73.3	57.3	58.5
October	82.5	69.5	78.2	71.1	56.9	57.3
November	82.1	69.7	78.3	72.8	56.9	59.0
December	77.8	69.5	76.7	74.3	57.9	62.0
1884.						
January	76.3	66.6	80.2	70.0	56.8	60.6
February	74.6	63.4	80.7	71.4	56.4	60.6
March	74.5	63.7	82.6	66.4	56.0	60.8
April	74.9	60.5	80.2	65.0	56.0	59.1
May	76.1	60.5	83.3	68.8	59.1	64.3
June	74.9	60.5	79.8	66.4	60.4	66.8
July	72.6	60.5	76.9	62.6	59.6	64.0
August	69.8	60.5	70.3	60.9	58.2	61.0
September	63.5	57.6	62.2	58.4	56.9	56.6
October	63.5	54.5	61.5	56.6	56.7	56.3
November	60.3	51.6	55.7	55.8	55.3	52.7
December	53.9	51.3	54.5	55.5	54.5	53.8
1885.						
January	60.4	58.3	62.5	60.2	62.6	61.6
February	61.2	55.0	62.5	58.8	69.8	66.3
March	61.9	55.2	61.0	58.5	68.9	66.8
April	67.0	58.4	69.5	64.6	66.6	67.6
May	69.8	63.4	74.4	67.3	68.6	74.2
June	68.5	64.9	74.6	66.3	68.9	66.8
July	65.5	63.4	73.4	67.0	64.9	61.7
August	65.1	63.7	73.4	63.9	63.1	59.8
September	61.8	63.4	68.8	62.3	60.0	60.4
October	66.5	62.5	69.9	67.0	62.2	63.4
November	66.0	62.2	69.8	66.7	62.2	64.2
December	66.0	62.5	69.0	66.0	62.2	63.2
1886.						
January	61.7	69.0	67.3	61.6	61.2	61.1
February	60.3	62.0	67.2	60.6	60.0	61.1
March	60.3	63.4	66.7	60.0	60.0	61.1
April	60.3	63.7	66.1	58.4	60.0	53.4
May	59.6	59.1	63.5	57.9	60.0	53.4
June	55.6	56.4	61.3	56.8	60.8	59.0
July	56.0	56.2	59.6	58.2	59.6	56.9
August	55.8	56.4	57.1	58.4	57.1	52.7
September	55.6	56.2	49.1	57.1	55.1	51.7
October	53.2	53.5	55.2	55.2	52.3	50.7
November	52.9	49.6	55.2	57.2	51.1	54.0
December	55.3	53.8	56.7	59.2	53.4	55.7
1887.						
January	57.0	46.7	60.5	60.2	53.3	58.0
February	56.3	46.5	60.0	57.6	58.3	56.4
March	55.8	46.7	59.7	58.1	52.4	56.7
April	55.6	46.5	59.4	61.3	52.4	58.5
May	56.5	46.7	60.0	64.9	52.4	58.6

RELATIVE MONTHLY PRICES OF WHEAT AND RYE FLOUR AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1882 TO 1899—Continued.

Year and month.	Products.			Material— wheat, No. 2, cash.	Product— rye flour, good to choice.	Material— rye, No. 2, in store.
	Flour, spring wheat, patent process.	Flour, good spring su- pers, low grade.	Flour, me- dium to choice winter wheat.			
1887.						
June	56.7	46.5	60.2	60.9	52.4	55.9
July	54.7	47.2	58.6	58.2	52.4	50.2
August	53.2	47.0	56.8	52.1	51.6	46.3
September	53.9	47.9	56.7	53.2	49.8	47.9
October	54.3	48.4	56.4	54.1	50.3	51.4
November	53.9	47.7	54.5	56.7	51.6	55.1
December	53.9	47.9	54.5	59.1	52.9	63.0
1888.						
January	53.6	50.8	55.5	58.9	52.7	65.1
February	52.5	50.8	54.1	57.7	53.6	63.2
March	52.0	50.8	53.1	56.6	53.8	61.6
April	52.5	50.8	53.1	58.3	53.3	64.8
May	53.4	50.8	52.0	65.1	54.9	69.3
June	57.7	50.8	52.3	63.0	56.4	61.8
July	56.9	50.8	52.3	63.0	54.7	53.3
August	55.6	50.8	54.5	67.1	54.5	50.5
September	66.1	51.6	61.8	97.5	52.5	55.7
October	85.5	59.6	84.3	84.3	65.8	60.8
November	84.1	57.6	82.8	83.2	66.0	56.4
December	81.1	52.5	78.8	77.8	62.3	53.4
1889.						
January	79.1	53.8	68.9	74.2	58.2	50.0
February	78.7	52.5	66.8	77.1	57.3	48.2
March	78.7	51.1	69.6	76.9	52.5	44.6
April	72.7	47.7	66.4	68.1	49.7	44.3
May	66.4	46.0	60.3	62.5	55.6	42.3
June	65.6	46.7	59.3	60.2	46.0	41.4
July	68.9	43.9	61.8	69.3	48.9	44.5
August	65.0	49.2	56.7	59.0	48.5	44.6
September	61.0	47.9	56.5	60.5	47.9	43.9
October	60.3	43.4	57.0	61.2	47.1	43.5
November	58.9	44.8	56.0	61.1	47.7	45.6
December	57.6	42.4	56.0	59.8	48.4	46.8
1890.						
January	57.1	40.9	56.0	58.4	48.4	47.4
February	56.3	40.4	54.9	57.6	48.4	45.2
March	56.1	40.7	56.4	59.8	47.9	45.8
April	58.6	44.1	58.9	63.7	47.6	49.0
May	63.5	46.5	64.2	72.3	49.3	55.4
June	61.4	44.8	64.1	67.6	49.8	51.6
July	59.4	43.6	62.2	68.5	48.4	51.6
August	66.2	51.3	66.7	75.3	54.7	63.2
September	69.8	52.5	69.6	76.5	59.4	64.4
October	66.6	54.5	68.2	76.3	62.5	67.2
November	62.4	54.5	64.7	72.3	65.6	70.6
December	61.0	54.0	65.6	69.1	66.2	71.9
1891.						
January	59.4	55.7	64.1	69.9	66.7	72.7
February	60.3	56.9	65.0	72.9	67.7	81.9
March	61.3	56.9	64.7	75.4	83.4	83.2
April	65.0	61.5	67.9	82.0	85.3	93.2
May	67.6	64.2	70.5	79.2	84.3	90.4
June	64.0	64.2	68.0	74.0	83.3	84.9
July	62.4	63.7	63.7	68.5	81.2	75.1
August	64.8	66.6	62.6	76.5	86.9	89.1
September	64.2	70.5	64.0	72.8	82.7	92.0
October	61.5	67.8	63.7	73.2	87.7	90.1
November	60.9	66.1	63.5	71.9	87.6	97.8
December	59.8	64.2	63.1	69.9	87.6	94.4
1892.						
January	58.1	58.6	62.2	66.9	85.8	87.6
February	56.6	47.9	62.1	67.2	83.6	86.0
March	56.6	47.5	61.9	63.8	79.1	86.4
April	54.2	47.2	59.3	62.0	74.8	78.3
May	55.2	47.2	59.2	63.2	73.8	79.4
June	55.5	46.5	59.2	63.3	73.8	79.2
July	54.6	43.8	56.5	59.7	69.2	73.3
August	53.9	42.4	52.6	58.9	63.1	67.4
September	53.0	42.6	51.3	55.9	62.2	59.6
October	51.3	41.6	49.3	55.1	61.5	56.7
November	50.0	40.9	48.0	54.5	57.8	52.0
December	49.7	37.5	48.0	54.3	57.8	51.0

RELATIVE MONTHLY PRICES OF WHEAT AND RYE FLOUR AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1882 TO 1899—Continued.

Year and month.	Products.			Material—wheat, No. 2, cash.	Product—rye flour, good to choice.	Material—rye, No. 2, in store.
	Flour, spring wheat, patent process.	Flour, good spring super, low grade.	Flour, medium to choice winter wheat.			
1893.						
January	49.9	35.8	48.4	57.5	57.8	56.9
February	49.7	35.6	48.4	56.5	56.0	54.9
March	49.7	38.3	47.7	58.1	52.4	51.4
April	48.9	36.3	47.2	60.6	51.1	52.8
May	50.0	35.8	45.8	55.3	51.1	50.0
June	48.1	36.3	44.8	49.7	51.1	53.2
July	47.6	37.5	43.0	46.1	50.4	51.9
August	47.6	37.5	42.2	45.4	46.2	47.8
September	47.6	37.5	42.9	50.6	46.2	46.1
October	47.3	37.5	42.9	48.4	46.2	46.1
November	45.9	37.5	42.2	46.3	47.1	47.4
December	44.3	37.5	42.2	47.3	47.1	47.9
1894.						
January	44.8	37.5	41.7	46.7	44.7	46.7
February	43.7	36.8	40.0	44.0	43.6	46.1
March	43.1	37.0	37.2	43.6	43.6	48.6
April	42.6	36.3	37.6	46.2	43.6	50.9
May	42.1	37.0	37.2	42.9	43.6	47.3
June	42.4	37.5	36.3	43.6	44.3	50.5
July	42.5	37.5	36.3	41.5	44.4	46.8
August	42.5	39.7	35.5	41.2	44.4	48.3
September	42.5	40.9	34.7	40.3	44.4	49.1
October	41.2	42.4	34.4	39.2	43.6	49.0
November	41.6	42.4	34.6	40.9	42.8	49.3
December	42.5	42.4	35.2	41.7	43.6	50.9
1895.						
January	41.9	42.4	35.2	39.8	42.9	51.4
February	41.4	42.4	34.4	38.8	43.2	54.0
March	41.9	42.4	35.9	40.9	44.1	54.6
April	42.9	42.6	37.8	44.9	48.3	60.5
May	47.2	47.5	46.5	54.3	64.4	67.7
June	52.2	51.6	53.1	57.4	64.4	67.4
July	51.0	47.0	48.1	50.7	57.2	51.8
August	46.7	45.5	47.2	48.6	47.1	45.8
September	43.8	44.1	44.3	44.9	43.1	40.0
October	42.1	43.3	44.2	45.5	42.2	41.5
November	41.1	40.2	44.3	43.6	42.2	38.5
December	39.7	37.3	44.6	43.4	40.4	35.9
1896.						
January	40.5	36.3	45.5	47.6	40.4	38.2
February	41.1	36.3	46.1	51.0	40.4	40.9
March	41.4	36.3	47.5	50.1	40.2	38.9
April	43.7	36.3	49.0	50.5	39.6	38.5
May	44.5	35.8	48.5	47.6	39.2	37.3
June	45.3	35.8	45.1	46.1	38.0	35.7
July	43.3	35.4	43.9	44.9	36.4	31.9
August	40.6	32.7	43.6	44.4	34.4	31.5
September	43.4	32.9	45.3	47.8	34.9	32.9
October	50.9	35.6	50.6	56.0	38.6	37.6
November	57.1	38.7	59.6	63.2	43.8	39.7
December	56.7	43.1	64.0	63.9	47.7	41.1
1897.						
January	54.2	41.2	62.8	58.9	47.1	38.7
February	52.4	38.0	60.3	57.0	41.1	35.4
March	51.4	35.8	59.6	56.2	39.6	34.9
April	50.5	35.6	59.4	55.1	39.6	34.6
May	51.9	35.6	64.5	55.3	40.9	35.8
June	48.9	34.9	58.9	53.5	38.8	34.9
July	49.9	34.9	57.6	56.0	39.6	37.9
August	59.0	42.1	62.9	67.3	45.3	45.0
September	67.0	48.4	69.5	70.7	58.7	52.1
October	62.1	47.5	68.0	68.8	52.4	48.1
November	60.3	43.1	64.5	70.6	52.9	49.6
December	58.5	42.4	62.5	73.4	50.2	48.5
1898.						
January	58.2	40.4	62.9	76.1	48.0	47.3
February	61.4	42.9	64.7	77.6	49.8	50.7
March	62.1	47.2	64.0	79.0	50.7	51.5
April	65.0	49.4	65.3	85.9	52.7	55.6
May	84.5	62.0	89.4	115.5	67.3	69.2
June	65.9	51.3	71.2	74.6	52.7	46.9

RELATIVE MONTHLY PRICES OF WHEAT AND RYE FLOUR AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1882 TO 1899—Concluded.

Year and month.	Products.			Material—wheat, No. 2, cash.	Product—rye flour, good to choice.	Material—rye, No. 2, in store.
	Flour, spring wheat, patent process.	Flour, good spring supers, low grade.	Flour, medium to choice winter wheat.			
1898.						
July	56.9	39.2	57.6	58.7	46.2	47.6
August	52.9	36.8	48.8	53.7	44.7	45.7
September	44.8	36.3	45.2	49.9	43.2	47.4
October	44.3	37.5	45.6	50.5	46.9	51.3
November	44.2	40.0	45.8	51.2	49.6	53.6
December	42.8	40.0	46.5	50.7	50.7	56.1
1899.						
January	43.9	40.7	49.4	54.5	52.9	58.4
February	45.1	40.0	50.9	55.1	53.3	58.2
March	44.0	36.8	48.0	53.7	49.6	56.3
April	43.8	35.8	46.4	56.0	49.8	58.1
May	44.7	36.3	46.8	56.5	51.2	62.8
June	45.7	38.3	48.0	57.6	51.8	61.9
July	44.7	38.0	46.8	55.1	50.2	57.5
August	44.4	36.8	45.9	54.9	46.8	55.8
September	45.1	37.0	46.7	55.3	49.6	58.4
October	45.1	39.2	47.8	54.6	51.7	58.1
November	43.4	38.7	46.5	52.2	50.3	54.8
December	42.9	36.8	45.1	51.1	49.6	52.7

MONTHLY PRICES OF CORN MEAL, OATMEAL, ETC., AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1888 TO 1899.

[The prices of the products shown are from the Chicago Grocers' Criterion and the prices of the materials from the Chicago Board of Trade. The combination manufacturing a large quantity of these products was organized in June, 1891.]

Year and month.	Products.		Material— corn, No. 2, cash, per bushel. (a)	Products.		Material— oats, No. 2, cash, per bushel. (a)	Product— pearl barley, per pound.	Material— barley, No. 3, per bushel. (a)
	Corn meal, white, per 196 pounds.	Corn meal, yellow, per 196 pounds.		Oat- meal, per 200 pounds.	Rolled oats, per 180 pounds.			
1888.								
January	\$2.75	\$2.75	\$.4875	\$5.10	\$5.50	\$0.31½	\$0.08½	\$0.7712
February	2.75	2.75	.4719	5.10	5.50	.28½	.08½	.7300
March	2.60	2.00	.4744	5.10	5.50	.28½	.08½	.7180
April	2.90	2.90	.5194	5.35	5.75	.30	.08½	.6475
May	2.75	2.75	.5719	5.10	5.50	.35½	.08½	.6275
June	2.75	2.75	.5119	5.10	5.50	.32½	.08½	.4687
July	2.75	2.60	.4788	5.25	5.75	.30½	.08	.4850
August	2.75	2.60	.4631	5.35	5.75	.25½	.02½	.6450
September	2.75	2.60	.4331	5.35	5.75	.23½	.02½	.6800
October	2.60	2.60	.4362	5.35	5.75	.26½	.02½	.6112
November	2.60	2.50	.3881	5.35	5.75	.25½	.02½	.5975
December	2.25	2.25	.3475	5.35	5.75	.25½	.02½	.5650
1889.								
January	2.20	2.20	.3431	5.10	5.50	.24½	.02½	.5587
February	2.20	2.20	.3444	5.10	5.50	.25½	.02½	.5168
March	1.95	1.95	.3450	5.10	5.10	.24½	.02½	.4985
April	1.95	1.95	.3438	4.80	5.20	.23½	.02½	.5187
May	1.95	1.85	.3444	4.60	4.80	.22½	.02½	.4975
June	1.85	1.85	.3456	4.60	4.80	.22½	.02½	.3981
July	2.00	2.00	.3600	4.60	5.00	.22½	.02½	.3675
August	(b)	(b)	.3475	(b)	(b)	.20½	(b)	.4450
September	(b)	(b)	.3250	(b)	(b)	.19½	(b)	.4700
October	(b)	(b)	.3200	(b)	(b)	.18½	(b)	.3425
November	(b)	(b)	.4587	(b)	(b)	.19½	(b)	.4140
December	(b)	(b)	.3206	(b)	(b)	.20½	(b)	.3875
1890.								
January	(b)	(b)	.2913	(b)	(b)	.20½	(b)	.3930
February	(b)	(b)	.2825	(b)	(b)	.20½	(b)	.3975
March	(b)	(b)	.2868	(b)	(b)	.20½	(b)	.3975

a The prices given are the averages of highest and lowest prices for each month.
b Not reported.

MONTHLY PRICES OF CORN MEAL, OATMEAL, ETC., AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1888 TO 1899—Continued.

Year and month.	Products.		Material— corn, No. 2, cash, per bushel. (a)	Products.		Material— oats, No. 2, cash, per bushel. (a)	Prod- uct— pearl barley, per pound.	Material— barley, No. 3, per bushel. (a)
	Corn meal, white, per 196 pounds.	Corn meal, yellow, per 196 pounds.		Oat- meal, per 200 pounds.	Rolled oats, per 180 pounds.			
1890.								
April.....	(b)	(b)	\$.3131	(b)	(b)	\$.23 ¹ / ₂	(b)	\$.4438
May.....	(b)	(b)	.3388	(b)	(b)	.27 ¹ / ₂	(b)	.4400
June.....	(b)	(b)	.3388	(b)	(b)	.27 ¹ / ₂	(b)	.3950
July.....	(b)	(b)	.4025	(b)	(b)	.31	(b)	.4117
August.....	(b)	(b)	.4800	(b)	(b)	.36 ¹ / ₂	(b)	.5760
September.....	(b)	(b)	.4750	(b)	(b)	.47 ¹ / ₂	(b)	.6355
October.....	(b)	(b)	.5075	(b)	(b)	.41 ¹ / ₂	(b)	.6590
November.....	(b)	(b)	.5144	(b)	(b)	.41 ¹ / ₂	(b)	.6833
December.....	(b)	(b)	.5087	(b)	(b)	.42 ¹ / ₂	(b)	.6330
1891.								
January.....	\$2.80	\$2.80	.4875	\$5.90	\$5.90	.42 ¹ / ₂	\$.08 ¹ / ₂	.6795
February.....	2.70	2.70	.5237	5.90	5.90	.45 ¹ / ₂	.08	.6800
March.....	2.70	2.70	.6200	5.91	5.90	.50 ¹ / ₂	.08	.6800
April.....	8.30	8.30	.7068	6.45	6.45	.54 ¹ / ₂	.08	.7638
May.....	8.65	8.65	.6225	6.06	6.85	.49 ¹ / ₂	.08	.7313
June.....	3.25	3.25	.5813	5.95	5.95	.39	.08	.6350
July.....	3.05	3.05	.6160	5.10	5.10	.36 ¹ / ₂	.08	.5328
August.....	3.05	3.05	.6318	5.10	5.10	.29 ¹ / ₂	.03	.5712
September.....	3.10	3.10	.5837	4.60	4.60	.28	.02	.4950
October.....	3.10	3.10	.5525	4.20	4.20	.28 ¹ / ₂	.02	.5000
November.....	3.10	3.10	.6360	4.25	4.25	.32 ¹ / ₂	.02	.5112
December.....	2.95	2.95	.4925	4.30	4.30	.32 ¹ / ₂	.02	.5025
1892.								
January.....	(b)	(b)	.3881	(b)	(b)	.29 ¹ / ₂	(b)	.5000
February.....	(b)	(b)	.4060	(b)	(b)	.28 ¹ / ₂	(b)	.4825
March.....	(b)	(b)	.3944	(b)	(b)	.28 ¹ / ₂	(b)	.4850
April.....	(b)	(b)	.4063	(b)	(b)	.28 ¹ / ₂	(b)	.5100
May.....	(b)	(b)	.7031	(b)	(b)	.30 ¹ / ₂	(b)	.5450
June.....	(b)	(b)	.5075	(b)	(b)	.31 ¹ / ₂	(b)	.4882
July.....	(b)	(b)	.4975	(b)	(b)	.32	(b)	.4790
August.....	(b)	(b)	.5181	(b)	(b)	.32 ¹ / ₂	.01 ¹ / ₂	.5087
September.....	2.90	2.90	.4619	4.75	4.75	.38 ¹ / ₂	.02	.5150
October.....	2.50	2.50	.4257	5.20	5.10	.30	.02	.5200
November.....	2.50	2.50	.4156	5.20	5.10	.30 ¹ / ₂	.02	.5275
December.....	2.50	2.50	.4131	5.20	4.95	.30 ¹ / ₂	.02	.5300
1893.								
January.....	2.50	2.50	.4263	4.95	4.65	.31	.01 ¹ / ₂	.5450
February.....	2.45	2.45	.4200	4.60	4.45	.30 ¹ / ₂	.02	.5312
March.....	2.40	2.40	.4081	4.55	4.45	.29 ¹ / ₂	.02	.5200
April.....	2.40	2.40	.4075	4.45	4.35	.27 ¹ / ₂	.02	.5200
May.....	2.40	2.40	.4200	4.45	4.35	.30 ¹ / ₂	.02	.5100
June.....	2.45	2.45	.3956	4.45	4.35	.29 ¹ / ₂	.02	.4087
July.....	2.35	2.35	.3868	4.40	4.10	.26 ¹ / ₂	.01 ¹ / ₂	.3733
August.....	2.35	2.35	.3819	4.20	4.10	.23 ¹ / ₂	.01 ¹ / ₂	.3413
September.....	2.35	2.35	.3987	4.10	3.95	.26 ¹ / ₂	.01 ¹ / ₂	.4490
October.....	(b)	(b)	.3900	(b)	(b)	.27 ¹ / ₂	(b)	.4675
November.....	(b)	(b)	.3719	(b)	(b)	.28 ¹ / ₂	(b)	.4587
December.....	(b)	(b)	.3538	(b)	(b)	.28 ¹ / ₂	(b)	.4448
1894.								
January.....	(b)	(b)	.3487	(b)	(b)	.27 ¹ / ₂	(b)	.4725
February.....	(b)	(b)	.3456	(b)	(b)	.28 ¹ / ₂	(b)	.4775
March.....	(b)	(b)	.3550	(b)	(b)	.29 ¹ / ₂	(b)	.5180
April.....	(b)	(b)	.3756	(b)	(b)	.32 ¹ / ₂	(b)	.5443
May.....	(b)	(b)	.3750	(b)	(b)	.34 ¹ / ₂	(b)	.5350
June.....	(b)	(b)	.3988	(b)	(b)	.42	(b)	.5225
July.....	(b)	(b)	.4806	(b)	(b)	.34 ¹ / ₂	(b)	.4700
August.....	(b)	(b)	.5337	(b)	(b)	.31 ¹ / ₂	(b)	.5150
September.....	(b)	(b)	.5325	(b)	(b)	.29 ¹ / ₂	(b)	.5275
October.....	3.10	3.00	.5094	4.65	4.40	.28 ¹ / ₂	.02	.5150
November.....	3.10	3.00	.5019	4.20	3.95	.28 ¹ / ₂	.02	.5362
December.....	3.10	3.00	.4631	4.20	4.00	.28 ¹ / ₂	.02	.5100
1895.								
January.....	2.75	2.45	.4325	4.20	3.65	.28 ¹ / ₂	.02	.5308
February.....	2.75	2.45	.4200	4.10	3.75	.27 ¹ / ₂	.02	.5417
March.....	2.75	2.45	.4431	4.10	3.75	.28 ¹ / ₂	.02	.5238
April.....	2.75	2.45	.4638	4.10	3.65	.28 ¹ / ₂	.02	.5017
May.....	2.75	2.60	.5081	4.10	3.65	.29	.02	.5080
June.....	2.85	2.85	.4987	3.80	3.70	.28 ¹ / ₂	.01	.5050

a The prices given are the averages of highest and lowest prices for each month.

b Not reported.

MONTHLY PRICES OF CORN MEAL, OATMEAL, ETC., AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1888 TO 1899—Concluded.

Year and month.	Products.		Material— corn, No. 2, cash, per bushel. (a)	Products.		Material— oats, No. 2, cash, per bushel. (a)	Product— pearl barley, per pound.	Material— barley, No. 3, per bushel. (a)
	Corn meal, white, per 196 pounds.	Corn meal, yellow, per 196 pounds.		Oat- meal, per 200 pounds.	Rolled oats, per 180 pounds.			
1895.								
July.....	\$2.85	\$2.85	\$0.4462	\$3.75	\$3.65	\$0.23 ^a	\$0.01 ¹	\$0.4088
August.....	2.80	2.80	.3969	3.50	3.25	.20 ¹	.01 ¹	.3750
September.....	2.90	2.36	.3337	3.50	3.00	.19 ¹	(b)	.3506
October.....	2.15	2.15	.3000	3.50	2.95	.18 ¹	.01 ¹	.3187
November.....	2.10	2.10	.2794	3.40	3.00	.18 ¹	.01 ¹	.3160
December.....	2.00	2.00	.2581	3.00	2.75	.17 ¹	.01 ¹	.3000
1896.								
January.....	1.90	1.80	.2688	3.20	2.55	.18 ¹	.01 ¹	.3030
February.....	1.80	1.70	.2838	3.10	2.50	.19 ¹	.01 ¹	.3131
March.....	1.85	1.75	.2862	3.10	2.75	.19 ¹	.01 ¹	.3056
April.....	1.80	1.70	.2962	3.10	2.60	.19 ¹	.01 ¹	.3195
May.....	1.90	1.70	.2850	3.10	2.60	.18 ¹	.01 ¹	.3180
June.....	1.90	1.70	.2738	3.00	2.60	.16 ¹	.01 ¹	.2774
July.....	1.90	1.65	.2594	3.25	2.50	.16 ¹	.01 ¹	.2620
August.....	1.95	1.70	.2275	3.35	2.90	.17 ¹	.01 ¹	.2743
September.....	1.85	1.60	.2087	3.55	3.10	.16 ¹	.01 ¹	.2756
October.....	1.90	1.65	.2312	3.90	3.65	.18 ¹	.01 ¹	.3080
November.....	1.95	1.65	.2413	4.40	4.00	.18 ¹	.01 ¹	.3093
December.....	1.95	1.65	.2313	4.60	4.00	.17 ¹	.01 ¹	.2994
1897.								
January.....	1.95	1.65	.2256	4.25	3.50	.16 ¹	.01 ¹	.2940
February.....	1.60	1.45	.2250	3.65	3.25	.16 ¹	.01 ^a	.2859
March.....	1.60	1.40	.2375	3.40	3.00	.16 ¹	.01 ¹	.2813
April.....	1.60	1.40	.2419	3.40	2.90	.17 ¹	.01 ¹	.2925
May.....	1.70	1.45	.2425	3.30	2.90	.17 ¹	.01 ¹	.2987
June.....	1.70	1.45	.2444	3.20	2.75	.18 ¹	.01 ¹	.2988
July.....	1.70	1.40	.2644	3.20	2.75	.17 ¹	.01 ¹	.3090
August.....	1.95	1.60	.2937	3.40	3.00	.18 ¹	.01 ¹	.3245
September.....	2.00	1.85	.2962	4.40	4.00	.19 ¹	.01 ¹	.3313
October.....	2.00	1.80	.2650	3.40	3.00	.18 ¹	.01 ¹	.3518
November.....	1.85	1.70	.2669	3.40	3.00	.20 ¹	.01 ¹	.3919
December.....	1.85	1.70	.2825	3.40	3.00	.22 ¹	.01 ¹	.3556
1898.								
January.....	1.85	1.70	.2713	3.60	3.25	.22 ¹	.01 ¹	.3238
February.....	1.85	1.65	.2894	3.75	3.35	.25 ¹	.01 ¹	.3387
March.....	1.95	1.75	.2894	3.90	3.50	.25 ¹	.01 ¹	.3737
April.....	1.95	1.75	.3206	4.00	3.60	.28 ¹	.01 ¹	.4125
May.....	1.95	1.80	.3469	4.20	3.85	.29 ¹	.01 ¹	.4675
June.....	2.05	2.00	.3237	4.10	3.70	.23 ¹	.01 ¹	.3575
July.....	2.05	1.75	.3362	3.90	3.50	.23 ¹	.01 ¹	.3310
August.....	2.15	1.80	.3175	3.70	3.30	.21 ¹	.01 ¹	.3687
September.....	2.00	1.70	.3025	3.70	3.25	.21 ^a	.01 ¹	.3660
October.....	2.00	1.70	.3081	3.00	3.20	.23 ¹	.01 ¹	.3850
November.....	2.00	1.70	.3306	3.60	3.20	.26 ¹	.01 ¹	.4313
December.....	2.00	1.95	.3556	3.70	3.30	.26 ¹	.02 ¹	.4520
1899.								
January.....	2.05	2.00	.3668	3.70	3.30	.27 ¹	.01 ^a	.4656
February.....	2.05	2.00	.3525	3.90	3.50	.27 ¹	.01 ^a	.4581
March.....	2.15	2.10	.3456	4.15	3.65	.26 ¹	.01 ^a	.4485
April.....	2.15	2.10	.3462	3.90	3.45	.26 ¹	.01 ¹	.4412
May.....	2.05	1.80	.3344	3.85	3.45	.25 ¹	.01 ¹	.3912
June.....	2.15	2.10	.3438	3.80	3.40	.25 ¹	.01 ¹	.3817
July.....	2.15	2.10	.3294	3.90	3.40	.23 ¹	.01 ¹	.3910
August.....	2.15	2.10	.3175	3.90	3.40	.20 ¹	.01 ¹	.3713
September.....	2.10	2.10	.3313	4.00	3.60	.22 ¹	.01 ¹	.4005
October.....	2.10	2.10	.3200	4.55	4.15	.22 ¹	.02 ^a	.4162
November.....	2.10	2.05	.3200	4.65	4.25	.23 ¹	.02 ¹	.4016
December.....	2.10	2.05	.3075	4.30	3.90	.22 ¹	.02 ¹	.3890

^aThe prices given are the averages of highest and lowest prices for each month.^bNot reported.

RELATIVE MONTHLY PRICES OF CORN MEAL, OATMEAL, ETC., AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1888 TO 1899.

[The combination manufacturing a large quantity of these products was organized in June, 1891.]

Year and month.	Products.		Material— corn, No. 2, cash.	Products.		Material— oats, No. 2, cash.	Product— pearl barley.	Material— barley, No. 3.
	Corn meal, white.	Corn meal, yellow.		Oatmeal.	Rolled oats.			
1888.								
January.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
February.....	100.0	100.0	96.8	100.0	100.0	91.2	96.4	94.7
March.....	94.5	72.7	97.8	100.0	100.0	90.9	92.9	93.1
April.....	105.5	105.5	106.5	104.9	104.5	96.0	92.9	84.0
May.....	100.0	100.0	117.8	100.0	100.0	112.8	92.9	81.4
June.....	100.0	100.0	105.0	100.0	100.0	102.9	92.9	60.8
July.....	100.0	94.5	98.2	102.9	104.5	98.1	85.7	62.9
August.....	100.0	94.5	92.9	104.9	104.5	81.9	82.1	70.7
September.....	100.0	94.5	88.8	104.9	104.5	76.2	82.1	75.2
October.....	94.5	94.5	89.5	104.9	104.5	84.2	78.6	79.3
November.....	90.9	90.9	79.6	104.9	104.5	82.2	78.6	77.5
December.....	81.8	81.8	71.3	104.9	104.5	82.6	78.6	75.9
1889.								
January.....	80.0	80.0	70.4	100.0	100.0	79.4	75.0	72.4
February.....	80.0	80.0	70.6	100.0	100.0	80.5	71.4	67.0
March.....	70.9	70.9	70.8	100.0	92.7	79.7	67.9	64.6
April.....	70.9	70.9	70.5	94.1	94.5	74.8	67.9	67.3
May.....	70.9	67.3	70.6	90.2	87.3	72.3	67.9	64.5
June.....	67.3	67.3	70.9	90.2	87.3	71.6	64.8	51.0
July.....	72.7	72.7	73.8	90.2	90.9	72.0	64.3	47.7
August.....	(a)	(a)	71.3	(a)	(a)	65.3	(a)	57.7
September.....	(a)	(a)	66.7	(a)	(a)	61.6	(a)	60.9
October.....	(a)	(a)	65.6	(a)	(a)	80.0	(a)	44.4
November.....	(a)	(a)	94.1	(a)	(a)	68.6	(a)	53.7
December.....	(a)	(a)	65.8	(a)	(a)	66.6	(a)	50.2
1890.								
January.....	(a)	(a)	59.8	(a)	(a)	66.4	(a)	51.0
February.....	(a)	(a)	57.9	(a)	(a)	64.8	(a)	51.5
March.....	(a)	(a)	58.8	(a)	(a)	66.8	(a)	51.5
April.....	(a)	(a)	64.2	(a)	(a)	74.6	(a)	57.5
May.....	(a)	(a)	69.5	(a)	(a)	87.6	(a)	57.1
June.....	(a)	(a)	69.5	(a)	(a)	88.8	(a)	51.2
July.....	(a)	(a)	82.6	(a)	(a)	99.2	(a)	53.4
August.....	(a)	(a)	98.5	(a)	(a)	118.0	(a)	74.7
September.....	(a)	(a)	97.4	(a)	(a)	152.5	(a)	82.4
October.....	(a)	(a)	104.1	(a)	(a)	132.2	(a)	85.3
November.....	(a)	(a)	105.5	(a)	(a)	133.6	(a)	88.6
December.....	(a)	(a)	108.3	(a)	(a)	136.7	(a)	82.1
1891.								
January.....	101.8	101.8	100.0	115.7	107.3	137.3	89.3	88.1
February.....	98.2	98.2	107.4	115.7	107.3	144.8	89.8	88.2
March.....	98.2	98.2	127.2	115.9	107.3	160.8	89.3	89.5
April.....	120.0	120.0	145.0	126.5	117.3	174.4	89.3	99.0
May.....	132.7	132.7	127.7	118.6	124.5	158.7	92.9	94.8
June.....	118.2	118.2	119.2	116.7	108.2	124.8	92.9	82.3
July.....	110.9	110.9	126.2	100.0	92.7	116.4	92.9	69.1
August.....	110.9	110.9	129.6	100.0	92.7	94.4	92.9	74.1
September.....	112.7	112.7	119.7	90.2	83.6	89.6	82.1	64.2
October.....	112.7	112.7	113.3	82.4	76.4	90.4	75.0	64.8
November.....	112.7	112.7	130.3	88.3	77.3	103.4	75.0	66.3
December.....	107.3	107.3	101.0	84.8	78.2	108.6	67.9	65.2
1892.								
January.....	(a)	(a)	78.6	(a)	(a)	95.4	(a)	64.8
February.....	(a)	(a)	83.1	(a)	(a)	92.5	(a)	62.6
March.....	(a)	(a)	80.9	(a)	(a)	90.0	(a)	62.9
April.....	(a)	(a)	83.3	(a)	(a)	92.0	(a)	66.1
May.....	(a)	(a)	144.2	(a)	(a)	98.6	(a)	70.7
June.....	(a)	(a)	104.1	(a)	(a)	100.0	(a)	63.3
July.....	(a)	(a)	102.1	(a)	(a)	102.4	(a)	62.0
August.....	(a)	(a)	106.3	(a)	(a)	104.0	50.0	66.0
September.....	105.5	105.5	94.7	93.1	86.4	105.8	57.1	70.7
October.....	90.9	90.9	87.3	102.0	92.7	96.0	71.4	67.4
November.....	90.9	90.9	85.3	102.0	92.7	97.6	71.4	68.4
December.....	90.9	90.9	84.7	102.0	90.0	97.3	71.4	68.7
1893.								
January.....	90.9	90.9	87.4	97.1	84.5	99.2	53.6	70.7
February.....	89.1	89.1	86.2	90.2	80.9	97.9	71.4	68.9
March.....	87.3	87.3	83.7	89.2	80.9	95.7	67.9	67.4
April.....	87.3	87.3	83.6	87.3	79.1	89.3	64.3	67.4
May.....	87.3	87.3	86.2	87.3	79.1	97.6	57.1	68.1

a Not reported.

RELATIVE MONTHLY PRICES OF CORN MEAL, OATMEAL, ETC., AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1888 TO 1899—Continued.

Year and month.	Products.		Material— corn, No. 2, cash.	Products.		Material— oats, No. 2, cash.	Product— pearl barley.	Material— barley, No. 3.
	Corn meal, white.	Corn meal, yellow.		Oatmeal.	Rolled oats.			
1893.								
June.....	89.1	89.1	81.1	87.3	79.1	94.0	57.1	58.0
July.....	85.5	85.5	79.3	86.3	74.5	83.7	50.0	48.4
August.....	85.5	85.5	78.3	82.4	74.5	75.2	50.0	44.3
September.....	85.5	85.5	81.8	80.4	71.8	84.2	50.0	58.2
October.....	(a)	(a)	80.0	(a)	(a)	86.8	(a)	60.6
November.....	(a)	(a)	76.3	(a)	(a)	90.4	(a)	59.5
December.....	(a)	(a)	72.6	(a)	(a)	90.0	(a)	57.7
1894.								
January.....	(a)	(a)	71.5	(a)	(a)	87.6	(a)	61.3
February.....	(a)	(a)	70.9	(a)	(a)	90.8	(a)	61.9
March.....	(a)	(a)	72.8	(a)	(a)	95.4	(a)	67.2
April.....	(a)	(a)	77.0	(a)	(a)	102.8	(a)	70.6
May.....	(a)	(a)	76.9	(a)	(a)	109.6	(a)	69.4
June.....	(a)	(a)	81.8	(a)	(a)	134.4	(a)	67.8
July.....	(a)	(a)	88.3	(a)	(a)	111.2	(a)	60.9
August.....	(a)	(a)	109.5	(a)	(a)	100.0	(a)	66.8
September.....	(a)	(a)	109.2	(a)	(a)	93.3	(a)	68.4
October.....	112.7	109.1	104.5	91.2	80.0	90.4	64.3	66.8
November.....	112.7	109.1	103.0	82.4	71.8	91.2	64.3	69.5
December.....	112.7	109.1	95.0	82.4	72.7	92.5	64.3	66.1
1895.								
January.....	100.0	89.1	88.7	82.4	66.4	90.0	64.3	68.8
February.....	100.0	89.1	86.2	80.4	68.2	88.0	57.1	70.2
March.....	100.0	89.1	90.9	80.4	68.2	92.0	60.7	67.9
April.....	100.0	89.1	95.1	80.4	66.4	90.6	57.1	65.1
May.....	100.0	94.5	104.2	80.4	66.4	92.8	57.1	65.2
June.....	108.6	108.6	102.8	74.5	67.3	91.2	58.6	65.5
July.....	108.6	108.6	91.5	73.5	66.4	76.5	53.6	53.0
August.....	101.8	101.8	81.4	68.6	59.1	65.6	50.0	48.6
September.....	83.6	83.6	68.5	68.6	54.5	61.6	(a)	45.5
October.....	78.2	78.2	61.5	68.6	53.6	58.0	46.4	41.3
November.....	76.4	76.4	57.3	66.7	54.5	58.0	46.4	41.0
December.....	72.7	72.7	52.9	58.8	50.0	54.4	45.7	38.9
1896.								
January.....	69.1	65.5	55.1	62.7	46.4	58.2	42.9	39.3
February.....	65.5	61.8	58.2	60.8	45.5	63.2	39.3	40.6
March.....	67.3	63.6	58.7	60.8	50.0	61.6	39.3	39.6
April.....	65.5	61.8	60.8	60.8	47.3	61.2	35.7	41.4
May.....	69.1	61.8	58.5	60.8	47.3	60.2	35.7	41.2
June.....	69.1	61.8	56.2	58.8	47.3	54.0	35.7	36.0
July.....	69.1	60.0	53.2	63.7	45.5	58.6	35.7	34.0
August.....	70.9	61.8	46.7	65.7	52.7	54.8	35.7	35.6
September.....	67.3	58.2	42.8	69.6	56.4	51.2	35.7	35.7
October.....	69.1	60.0	47.4	76.5	66.4	58.6	35.7	39.9
November.....	70.9	60.0	49.5	86.3	72.7	59.5	39.3	40.1
December.....	70.9	60.0	47.4	90.2	72.7	56.3	39.3	38.8
1897.								
January.....	70.9	60.0	46.3	83.3	63.6	52.4	39.3	38.1
February.....	58.2	52.7	46.2	71.6	59.1	51.6	37.1	37.1
March.....	58.2	50.9	48.7	66.7	54.5	52.8	35.7	36.5
April.....	58.2	50.9	49.6	66.7	52.7	54.8	32.1	37.9
May.....	61.8	52.7	49.7	64.7	52.7	56.5	32.1	38.7
June.....	61.8	52.7	50.1	62.7	50.0	58.0	32.1	38.7
July.....	61.8	50.9	54.2	62.7	50.0	56.0	32.7	40.1
August.....	70.9	58.2	60.2	66.7	54.5	58.1	35.7	42.1
September.....	72.7	67.3	60.8	86.3	72.7	63.4	40.0	49.4
October.....	72.7	65.5	54.4	66.7	54.5	60.0	39.3	45.6
November.....	67.3	61.8	54.7	66.7	54.5	66.8	46.4	50.8
December.....	67.3	61.8	58.8	66.7	54.5	71.7	42.9	46.1
1898.								
January.....	67.3	61.8	55.7	70.6	59.1	72.8	42.9	42.0
February.....	67.3	60.0	59.4	73.5	60.9	81.6	39.3	43.9
March.....	70.9	63.6	59.4	76.5	63.8	82.6	40.0	48.5
April.....	70.9	63.6	65.8	78.4	65.5	90.9	42.9	53.5
May.....	70.9	65.5	71.2	82.4	70.0	92.8	46.4	60.6
June.....	74.5	72.7	66.4	80.4	67.3	76.0	50.0	46.4
July.....	74.5	68.6	69.0	76.5	63.6	74.8	46.4	42.9
August.....	78.2	65.5	65.1	72.5	60.0	68.4	42.9	47.8
September.....	72.7	61.8	62.1	72.5	59.1	68.2	46.4	47.5
October.....	72.7	61.8	63.2	58.8	58.2	74.4	50.0	49.9
November.....	72.7	61.8	67.8	70.6	58.2	83.2	53.6	55.9
December.....	72.7	70.9	72.9	72.5	60.0	86.0	57.1	58.6

a Not reported.

RELATIVE MONTHLY PRICES OF CORN MEAL, OATMEAL, ETC., AND THE MATERIALS ENTERING INTO THEIR MANUFACTURE, 1888 TO 1899—Concluded.

Year and month.	Products.		Material— corn, No. 2, cash.	Products.		Material— oats, No. 2, cash.	Product— pearl barley.	Material— barley, No. 3.
	Corn meal, white.	Corn meal, yellow.		Oatmeal.	Rolled oats.			
1899.								
January.....	74.5	72.7	75.2	72.5	60.0	86.4	54.3	60.4
February.....	74.5	72.7	72.3	76.5	63.6	88.3	54.3	59.4
March.....	78.2	76.4	70.9	81.4	66.4	84.8	54.3	58.2
April.....	78.2	76.4	71.0	76.5	62.7	85.8	50.0	57.2
May.....	74.5	65.5	68.6	76.5	62.7	81.9	50.0	50.7
June.....	78.2	76.4	70.5	74.5	61.8	80.8	50.0	49.5
July.....	78.2	76.4	67.6	76.5	61.8	76.0	50.0	50.7
August.....	78.2	76.4	65.1	76.5	61.8	65.9	50.0	48.1
September.....	76.4	76.4	68.0	78.4	65.5	70.8	46.4	51.9
October.....	76.4	76.4	65.6	89.2	75.5	72.8	60.0	54.0
November.....	76.4	74.5	65.6	91.2	77.3	74.4	64.3	52.1
December.....	76.4	74.5	63.1	84.3	70.9	72.3	64.3	50.4

A general inspection of the table showing the monthly prices of crackers of various kinds as compared with that of flour shows that for two or three months in 1898 there was a decided advance in the price of flour and also some advance in the price of crackers, but the table seems to indicate that in some instances, since the formation of the combination in the earlier part of 1898, the margin must have increased. There has certainly been a decided decrease in the price of flour. There has apparently been but a slight increase, if any, in the price of lard, whereas the price of the finished product seems to have remained substantially uniform.

The general result of the study of the prices in the preceding tables in the specific instances where the margin between the price of the raw material and of the finished product can be definitely ascertained, and where the writer has sufficient information regarding the processes so that the reasons for the variations in the prices can be adequately checked, seems to show that the combinations have in some cases had the power, temporarily at least, to control the market to a considerable extent, and that in most such cases they have used this power to increase the margin between the raw material and the finished product—possibly by forcing the price of the finished material up or by forcing the price of the raw material down; possibly in certain instances the power has been exerted in both ways. At any rate the margin has increased, and with this, beyond question, the profits of the manufacturers. On the other hand, several instances to which attention has been called show that apparently this power is by no means sufficient to remove the combination from the influence of competition, either actual or potential, and that in a good many instances, within a comparatively short time after the formation of the combination, the margin has again decreased until it was as small as before the formation of the combination, at times even smaller. It is to be expected usually, of course, that as time passes improvements in

methods of production will lessen the cost, and that in consequence, with the same profits, the margin will decrease somewhat. If the combinations have been enabled to make the economies that their promoters ordinarily promise, this decrease in the margin would be expected, even though their profits were to increase somewhat. The fact that the power to increase the margin, temporarily at least, somewhat arbitrarily, and the fact that this margin has been increased in specific cases, seem to be clearly established. Here again, however, one needs to be warned somewhat against too radical or too general conclusions. Those combinations that have been formed, for example, during the last year in a good many lines of industry have possibly been enabled to increase the margin mainly on account of the very strong demand for their products. In these industries the margin has probably been increased also to an almost equal degree by private companies who have not entered into any combination, the result in both cases being largely due to the extremely favorable conditions of business.

The large mass of material furnished, of which no interpretation whatever has been attempted, will afford the opportunity to those skilled in the various lines of business represented to reach conclusions more complete than any offered here. The list of tables in which this material, both in wages and prices, is presented is as follows:

TABLE I.—Rates of wages in various occupations.

TABLE II.—Monthly prices of pig iron, steel billets, rails, etc., 1889 to 1899.

TABLE III.—Relative monthly prices of pig iron, steel billets, rails, etc., 1889 to 1899.

TABLE IV.—Monthly prices of finished iron and steel, 1889 to 1899.

TABLE V.—Relative monthly prices of finished iron and steel, 1889 to 1899.

TABLE VI.—Monthly prices of old material, coal, and coke, 1889 to 1899.

TABLE VII.—Relative monthly prices of old material, coal, and coke, 1889 to 1899.

TABLE VIII.—Monthly prices of smooth wire, September, 1895, to December, 1899.

TABLE IX.—Monthly prices of starch and glucose and the material entering into their manufacture, 1888 to 1899.

TABLE X.—Relative monthly prices of starch and glucose and the material entering into their manufacture, 1888 to 1899.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

AWNINGS, TENTS, AND SAILS.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Awning and tent makers: Boston, Mass.	1	1896	16	F.	58½	\$1.16½	\$1.33½	\$1.25
Sailmakers: Boston, Mass.	1	1896	10	M.	60	2.50	2.66½	2.55

BAKERY PRODUCTS AND CONFECTIONERY.

Bakers:								
Atlanta, Ga.	1	1890	16	M.	60	\$0.60	\$2.00	\$1.22
	1	1899	18	M.	60	.60	2.00	1.06
Boston, Mass.	3	1891	34	M.	α 82	1.00	3.50	2.01
	3	1892	37	M.	α 82	1.00	4.16½	2.12½
	3	1893	47	M.	α 82	1.00	4.16½	2.17½
	3	1894	35	M.	α 82	1.25	4.16½	2.20
	3	1895	37	M.	α 74	1.25	4.16½	2.28½
	3	1896	34	M.	α 74	1.25	4.16½	2.26½
	3	1897	40	M.	α 74	1.16½	4.16½	2.18½
	3	1898	44	M.	α 74	1.25	4.16½	2.22
	3	1899	48	M.	α 68	1.16½	4.16½	2.16½
	3	1900	51	M.	α 68	1.16½	4.16½	2.15
Candy makers:								
Atlanta, Ga.	2	1890	32	M.	60	.75	4.16½	1.47½
	2	1899	39	M.	60	.66½	6.66½	1.46
	2	1890	19	F.	60	.41½	2.00	.52½
	2	1899	50	F.	60	.41½	.75	.50½
Foremen, bakers:								
Atlanta, Ga.	1	1890	1	M.	60	4.16½	4.16½	4.16½

BEER, ALE, AND PORTER.

Bottlers:								
Philadelphia, Pa.	1	1891	43	M.	60	\$0.75	\$3.83½	\$1.52
	1	1893	47	M.	60	.75	3.83½	1.51
	1	1894	31	M.	60	.75	3.83½	1.50
	1	1900	14	M.	60	.75	3.83½	1.78½
Brewery workmen: (b)								
Philadelphia, Pa.	1	1891	56	M.	60	2.88½	3.00	2.49½
Cellar men:								
Philadelphia, Pa.	1	1891	41	M.	60	2.50	3.33½	2.64
	1	1896	46	M.	60	2.50	3.33½	2.56½
Drivers:								
Philadelphia, Pa.	1	1891	58	M.	72	2.88½	3.00	2.65½
	1	1892	62	M.	72	2.88½	2.88½	2.58½
	1	1896	51	M.	72	2.88½	2.66½	2.55½
Engineers:								
Philadelphia, Pa.	1	1891	15	M.	84	1.71½	2.57	2.25
	1	1893	19	M.	84	1.71½	2.85½	2.16½
	1	1894	19	M.	84	1.71½	2.85½	2.13½
Firemen:								
Philadelphia, Pa.	1	1891	9	M.	84	1.71½	2.00	1.90½
	1	1892	13	M.	84	1.71½	2.14½	1.91
	1	1894	17	M.	84	1.71½	2.14½	1.96½
	1	1895	10	M.	84	2.14½	2.14½	2.14½
	1	1897	10	M.	84	2.00	2.00	2.00
Firemen's helpers:								
Philadelphia, Pa.	1	1891	4	M.	84	1.50	1.50	1.50
	1	1895	25	M.	84	1.50	1.71½	1.58½
	1	1897	16	M.	84	1.50	1.50	1.50

α Average.

b Including barrel washers, coopers, stamper, and general laborers.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BEER, ALE, AND PORTER—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Hostlers:								
Philadelphia, Pa.....	1	1891	19	M.	a 72	\$2.00	\$2.16½	\$2.03½
	1	1895	82	M.	a 72	2.00	2.00	2.00
Kettle men:								
Philadelphia, Pa.....	1	1891	13	M.	60	2.50	3.00	2.70½
	1	1895	12	M.	60	2.50	3.00	2.66½
Mechanics:								
Philadelphia, Pa.....	1	1891	28	M.	60	2.00	3.16½	2.39½
	1	1894	24	M.	60	2.00	3.33½	2.48

BLACKSMITHING AND HORSESHOEING.

Blacksmiths:								
Boston, Mass.....	3	1891	4	M.	53½	\$2.70	\$2.70	\$2.70
	3	1895	4	M.	51	2.55	2.55	2.55
Raleigh, N. C.....	4	1890	2	M.	60	1.25	1.25	1.25
	4	1895	2	M.	60	1.25	1.50	1.37½
	4	1900	2	M.	60	1.50	1.67	1.58½
Blacksmiths' helpers:								
Boston, Mass.....	3	1891	4	M.	53½	1.80	1.80	1.80
	3	1895	4	M.	51	1.70	1.70	1.70
Raleigh, N. C.....	4	1890	3	M.	60	.67	.67	.67
	4	1895	2	M.	60	.75	.75	.75
	4	1900	3	M.	60	.85	.85	.85
Horseshoers:								
Atlanta, Ga.....	1	1890	10	M.	60	1.25	2.50	1.67½
	1	1893	4	M.	60	2.50	3.00	2.75
	2	1890	4	M.	60	2.50	2.50	2.50
	2	1894	4	M.	60	2.00	2.00	2.00

BOOTS AND SHOES.

Cutters:								
Brockton, Mass.....	2	1896	49	M.	58	\$2.00	\$3.00	\$2.53
	2	1897	43	M.	58	1.75	3.00	2.52½
Cutters, sole:								
Brockton, Mass.....	1	1895	12	M.	59½	1.50	2.50	2.12½
	1	1897	11	M.	59½	1.75	2.75	2.25
	1	1899	14	M.	59½	2.25	2.75	2.41
	1	1900	13	M.	59½	2.00	2.75	2.38½
Cutters, upper:								
Brockton, Mass.....	1	1895	12	M.	59½	2.00	2.75	2.37½
	1	1897	12	M.	59½	2.00	3.00	2.52
	1	1900	20	M.	59½	2.00	2.75	2.43½
Edge setters:								
Brockton, Mass.....	1	1895	2	M.	59½	3.54½	3.54½	3.54½
	1	1897	4	M.	59½	2.67½	3.97½	3.52½
	1	1899	5	M.	59½	3.70½	5.20	4.53½
	1	1900	6	M.	59½	2.83½	3.73	3.42
Edge trimmers:								
Brockton, Mass.....	1	1895	3	M.	59½	2.16½	3.25	2.52½
	1	1897	5	M.	59½	2.03½	3.01	2.45
	1	1899	8	M.	59½	2.29½	4.21½	3.61
	1	1900	9	M.	59½	2.26	4.21½	3.40
Finishers:								
Brockton, Mass.....	2	1896	29	M.	58	(b)	(b)	3.16½
	2	1897	25	M.	58	(b)	(b)	2.98
	2	1898	23	M.	58	(b)	(b)	3.59
	2	1899	45	M.	58	(b)	(b)	2.92
	2	1900	57	M.	58	(b)	(b)	\$.15

a In addition, 2 hours' gratuitous work is required on Sundays.

b Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BOOTS AND SHOES—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Lasters:								
Brockton, Mass.	1	1895	20	M.	59½	\$1.92	\$3.46	\$2.58½
	1	1897	15	M.	59½	1.52	3.24	2.59½
	1	1899	37	M.	59½	2.55	3.47	2.83½
	1	1900	37	M.	59½	2.62½	3.48	2.93½
	2	1896	46	M.	58	(a)	(a)	4.54½
	2	1897	52	M.	58	(a)	(a)	3.56½
	2	1898	47	M.	58	(a)	(a)	4.11
	2	1899	69	M.	58	(a)	(a)	3.52½
	2	1900	120	M.	58	(a)	(a)	2.91½
Stitchers, bottom:								
Brockton, Mass.	1	1895	5	M.	59½	2.50	3.05	2.91
	1	1897	5	M.	59½	2.62½	3.43½	3.06½
	1	1899	9	M.	59½	3.17	4.14½	3.35
	1	1900	10	M.	59½	3.20	3.66½	3.39½
Stitchers, upper:								
Brockton, Mass.	1	1895	16	F.	58	1.29	2.78	1.99
	1	1897	19	F.	58	1.24½	3.13½	2.06
	1	1899	41	F.	58	1.31½	3.18	2.26
	1	1900	41	F.	58	1.20½	3.05	2.11
	2	1896	32	M.	58	1.75	3.16½	2.39½
	2	1898	81	M.	58	1.75	3.00	2.45½
	2	1899	33	M.	58	1.75	3.00	2.23½
	2	1900	64	M.	58	1.75	3.00	2.28
	2	1896	76	F.	58	1.75	3.16½	2.34
	2	1899	99	F.	58	1.75	3.00	2.14
	2	1900	161	F.	58	1.75	3.16½	2.11
Table hands:								
Brockton, Mass.	1	1895	14	F.	58	.87½	1.92	1.28½
	1	1897	12	F.	58	.92	1.91½	1.46½
	1	1899	22	F.	58	1.14½	2.21½	1.79
	1	1900	20	F.	58	1.20½	2.38½	1.77½
Treers:								
Brockton, Mass.	1	1895	12	M.	59½	1.42	2.24	1.70
	1	1897	12	M.	59½	1.46½	2.36	1.91½
	1	1899	14	M.	59½	1.44	2.86	2.10½
	1	1900	16	M.	59½	1.83½	2.47	2.13
	2	1896	29	M.	58	(a)	(a)	2.31½
	2	1897	24	M.	58	(a)	(a)	2.35½
	2	1898	27	M.	58	(a)	(a)	1.84
	2	1899	23	M.	58	(a)	(a)	2.47
	2	1900	44	M.	58	(a)	(a)	2.91
Vampers:								
Brockton, Mass.	1	1895	7	F.	58	1.96	2.68	2.25
	1	1897	9	F.	58	2.12	2.92½	2.44½
	1	1899	14	F.	58	2.06½	3.07	2.53
	1	1900	14	F.	58	1.88	3.01	2.55½
Welters:								
Brockton, Mass.	1	1895	2	M.	59½	3.25	3.25	3.25
	1	1897	3	M.	59½	4.06½	4.09	4.07½
	1	1899	8	M.	59½	3.73½	4.39½	4.22
	1	1900	8	M.	59½	3.97	4.21½	4.07

BOXES, PAPER.

Box makers:								
Boston, Mass.	1	1891	20	F.	59	\$0.83½	\$1.16½	\$1.01½
	1	1897	50	F.	59	.75	1.50	1.13½
	1	1899	50	F.	59	.83½	1.66½	1.31
Cutters:								
Boston, Mass.	1	1891	3	M.	59	2.00	3.00	2.33½
	1	1896	4	M.	59	2.00	2.66½	2.16½
	1	1899	5	M.	59	2.00	3.00	2.36½
	1	1900	4	M.	59	2.00	3.00	2.36½
New York, N. Y.	2	1891	3	M.	59	1.83½	2.50	2.16½
	2	1896	3	M.	59	1.91½	2.58½	2.25
	2	1899	3	M.	59	2.00	2.66½	2.33½

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BOXES, PAPER—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Pasters:								
New York, N. Y.	2	1891	20	F.	59	\$0.50	\$1.16 $\frac{1}{2}$	\$0.83 $\frac{1}{2}$
	2	1898	20	F.	59	.58 $\frac{1}{2}$	1.25	.91 $\frac{1}{2}$
	2	1899	20	F.	59	.66 $\frac{1}{2}$	1.33 $\frac{1}{2}$	1.00

BOXES, WOODEN.

Box makers:								
Boston, Mass.	2	1892	39	M.	60	\$1.00	\$1.83 $\frac{1}{2}$	\$1.39
	2	1895	41	M.	60	1.00	2.00	1.46 $\frac{1}{2}$
	2	1899	48	M.	60	1.00	2.00	1.44
	2	1900	49	M.	60	1.00	2.00	1.44 $\frac{1}{2}$
New York, N. Y.	3	1891	75	(a)	59	1.66 $\frac{1}{2}$	3.33 $\frac{1}{2}$	2.66 $\frac{1}{2}$
Drivers:								
New York, N. Y.	3	1890	8	M.	59	1.66 $\frac{1}{2}$	1.66 $\frac{1}{2}$	1.66 $\frac{1}{2}$
	3	1898	8	M.	59	1.66 $\frac{1}{2}$	1.83 $\frac{1}{2}$	1.75
Edge trimmers:								
New York, N. Y.	4	1891	37	M.	59	1.50	1.66 $\frac{1}{2}$	1.58 $\frac{1}{2}$
Engineers, stationary:								
New York, N. Y.	3	1891	1	M.	59	3.00	3.00	3.00
Firemen, stationary:								
New York, N. Y.	3	1891	1	M.	59	1.66 $\frac{1}{2}$	1.66 $\frac{1}{2}$	1.66 $\frac{1}{2}$
Nailers:								
Boston, Mass.	1	1891	6	M.	60	.83	3.00	1.66 $\frac{1}{2}$
	1	1899	6	M.	58	.83	3.00	1.66 $\frac{1}{2}$
New York, N. Y.	4	1891	25	M.	59	2.00	2.33 $\frac{1}{2}$	2.16 $\frac{1}{2}$
	5	1898	5	M.	60	2.00	2.00	2.00
	5	1900	5	M.	60	2.16 $\frac{1}{2}$	2.16 $\frac{1}{2}$	2.16 $\frac{1}{2}$
Paper cutters:								
New York, N. Y.	4	1891	6	M.	59	1.66 $\frac{1}{2}$	2.00	1.83 $\frac{1}{2}$
	5	1898	1	M.	60	2.00	2.00	2.00
	5	1899	1	M.	60	2.16 $\frac{1}{2}$	2.16 $\frac{1}{2}$	2.16 $\frac{1}{2}$
	5	1900	1	M.	60	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$
Pasters:								
Boston, Mass.	1	1891	(a)	F.	60	.50	1.66 $\frac{1}{2}$	(a)
	1	1899	28	F.	58	.50	1.66 $\frac{1}{2}$	.88 $\frac{1}{2}$
New York, N. Y.	5	1898	13	F.	60	1.08 $\frac{1}{2}$	1.08 $\frac{1}{2}$	1.08 $\frac{1}{2}$
	5	1900	14	F.	60	1.25	1.25	1.25
Planers:								
New York, N. Y.	3	1890	1	M.	59	4.16 $\frac{1}{2}$	4.16 $\frac{1}{2}$	4.16 $\frac{1}{2}$
	4	1891	20	M.	59	1.66 $\frac{1}{2}$	2.50	2.08 $\frac{1}{2}$
	5	1898	1	M.	60	2.00	2.00	2.00
	5	1899	1	M.	60	2.16 $\frac{1}{2}$	2.16 $\frac{1}{2}$	2.16 $\frac{1}{2}$
	5	1900	1	M.	60	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$
Printers:								
Boston, Mass.	1	1891	6	M.	60	1.33	3.00	2.11
	1	1899	6	M.	58	1.33	3.00	2.11
New York, N. Y.	4	1891	19	M.	59	1.00	2.00	1.50
	5	1898	4	M.	60	1.83 $\frac{1}{2}$	1.83 $\frac{1}{2}$	1.83 $\frac{1}{2}$
	5	1899	4	M.	60	2.00	2.00	2.00
	5	1900	4	M.	60	2.16 $\frac{1}{2}$	2.16 $\frac{1}{2}$	2.16 $\frac{1}{2}$
Sawyers:								
Boston, Mass.	1	1891	6	M.	60	1.83	3.00	2.20 $\frac{1}{2}$
	1	1899	6	M.	58	1.83	3.00	2.20 $\frac{1}{2}$
New York, N. Y.	3	1890	12	M.	59	2.16 $\frac{1}{2}$	2.33 $\frac{1}{2}$	2.25
	4	1891	28	M.	59	2.00	2.50	2.12 $\frac{1}{2}$
	5	1898	4	M.	60	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$
	5	1899	4	M.	60	2.50	2.50	2.50
	5	1900	5	M.	60	2.66 $\frac{1}{2}$	2.66 $\frac{1}{2}$	2.66 $\frac{1}{2}$

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BRICKS.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Engineers, stationary: Greensboro, N. C	1	1894	1	M.	60	\$0.90	\$0.90	\$0.90
	1	1898	1	M.	60	1.00	1.00	1.00
Kiln firemen: Greensboro, N. C	1	1894	8	M.	72	.75	.75	.75
	1	1899	4	M.	72	.85	.85	.85
Laborers: Greensboro, N. C	1	1894	60	M.	60	.75	.75	.75
	1	1899	20	M.	60	.65	.75	.66½

BRUSHES.

Brush makers: New York, N. Y	1	1891	50	M.	59	\$2.50	\$4.00	\$3.10
	1	1892	50	M.	59	2.40	3.88	3.00
	1	1893	50	M.	59	2.30	3.73	2.88
	1	1894	50	M.	59	2.18	3.55	2.74
	1	1895	50	M.	59	2.07	3.27	2.63
	1	1896	50	M.	59	2.05	3.20	2.48
	1	1897	50	M.	59	2.15	3.33	2.58
	1	1898	50	M.	59	2.28	3.52	2.72
	1	1899	50	M.	59	2.50	4.00	3.10
	1	1891	250	F.	59	1.00	1.50	1.24
	1	1892	250	F.	59	.96½	1.45	1.21
	1	1893	250	F.	59	.92½	1.39	1.16
	1	1894	250	F.	59	.88	1.33½	1.10
	1	1895	250	F.	59	.81½	1.21	1.02½
	1	1896	250	F.	59	.80	1.20	1.01½
	1	1897	230	F.	59	.83½	1.25	1.05
	1	1898	240	F.	59	.88½	1.32½	1.11½
	1	1899	250	F.	59	1.00	1.50	1.23½
	1	1900	260	F.	59	1.00	1.50	1.25
Worcester, Mass	2	1891	6	M.	59	.80	2.33½	1.63
	2	1899	5	M.	59	1.00	2.50	1.95
	2	1891	11	F.	58	.80	1.50	1.04½
	2	1899	11	F.	58	1.00	1.50	1.18

BUILDING.

Bricklayers: Atlanta, Ga	1	1892	14	M.	60	\$1.50	\$3.00	\$2.15½
	1	1896	18	M.	60	1.50	2.00	1.84½
	1	1899	15	M.	60	2.25	2.25	2.25
Augusta, Ga	2	1890	20	M.	60	1.75	2.25	2.02½
	2	1900	25	M.	60	2.00	3.00	2.48
Birmingham, Ala	6	1890	250	M.	54	3.60	3.60	3.60
	6	1893	200	M.	54	2.25	2.25	2.25
	6	1894	200	M.	54	2.70	2.70	2.70
	6	1897	250	M.	54	3.60	3.60	3.60
	6	1899	500	M.	54	4.05	4.05	4.05
Boston, Mass	8	1891	40	M.	54	3.60	3.60	3.60
	8	1899	60	M.	48	3.60	3.60	3.60
	13	1891	100	M.	54	3.78	3.78	3.78
	13	1893	120	M.	48	3.86	3.86	3.86
	13	1898	142	M.	48	3.60	3.60	3.60
Buffalo, N. Y	16	1891	48	M.	60	3.33½	3.33½	3.33½
	16	1894	37	M.	54	3.24	3.24	3.24
	16	1899	28	M.	54	3.60	3.60	3.60
	17	1891	140	M.	54	3.24	3.24	3.24
	17	1899	124	M.	48	3.29	3.29	3.29
	20	1892	40	M.	54	3.24	3.24	3.24
	20	1898	50	M.	48	2.65	2.65	2.65
	20	1899	45	M.	48	3.20	3.20	3.20

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BUILDING—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Bricklayers—Concluded.								
Burlington, N. C	22	1890	4	M.	60	\$2.00	\$2.25	\$2.12½
	22	1897	7	M.	60	1.75	2.25	1.96½
	22	1899	14	M.	60	1.75	2.50	2.03½
Chicago, Ill	26	1891	26	M.	48	4.00	4.00	4.00
Cleveland, Ohio	a 39	1890	(b)	M.	54	3.82½	3.82½	3.82½
	a 39	1892	(b)	M.	54	4.05	4.05	4.05
	a 39	1898	(b)	M.	(b)	c. 35	c. 35	c. 35
	a 39	1894	(b)	M.	48	2.80	3.20	(b)
	a 39	1896	(b)	M.	48	3.20	3.20	3.20
	a 39	1899	(b)	M.	48	3.60	3.60	3.60
Greensboro, N. C	40	1890	15	M.	60	1.75	2.00	1.88½
	40	1898	15	M.	60	1.75	2.50	2.00
	40	1899	15	M.	60	2.00	2.50	2.26½
	41	1890	8	M.	60	1.75	2.00	1.90½
	41	1899	8	M.	60	2.00	2.50	2.31½
	42	1890	4	M.	60	1.75	2.50	2.06½
	42	1894	10	M.	60	2.00	3.00	2.50
	42	1899	10	M.	60	2.00	3.00	2.60
	42	1900	13	M.	60	2.00	3.00	2.54
Los Angeles, Cal	43	1890	12	M.	48	4.00	4.00	4.00
	43	1892	10	M.	48	3.00	3.00	3.00
	43	1896	12	M.	48	3.50	3.50	3.50
	43	1899	10	M.	48	4.00	4.00	4.00
New York, N. Y	58	1891	70	M.	48	4.00	4.00	4.00
	58	1899	90	M.	44	4.03½	4.03½	4.03½
Passaic, N. J	56	1891	30	M.	60	3.00	3.00	3.00
	56	1896	30	M.	60	3.50	3.50	3.50
	56	1897	30	M.	58	3.09	3.09	3.09
	56	1900	8	M.	58	3.53½	3.53½	3.53½
Philadelphia, Pa	60	1891	125	M.	54	4.05	4.05	4.05
	60	1896	115	M.	48	3.00	3.00	3.00
	60	1899	120	M.	48	3.60	3.60	3.60
	60	1900	117	M.	48	4.00	4.00	4.00
San Francisco, Cal	68	1890	20	M.	54	6.00	6.00	6.00
	68	1893	25	M.	48	5.00	5.00	5.00
	73	1890	12	M.	60	6.00	6.00	6.00
	73	1893	12	M.	48	5.00	5.00	5.00
Bricklayers' helpers:								
Boston, Mass	8	1891	100	M.	54	1.75	1.75	1.75
	8	1899	150	M.	48	2.00	2.00	2.00
Los Angeles, Cal	45	1890	6	M.	54	2.50	2.50	2.50
	45	1892	5	M.	54	2.00	2.00	2.00
	45	1897	5	M.	54	1.75	1.75	1.75
Philadelphia, Pa	60	1891	110	M.	54	2.70	2.70	2.70
	60	1896	102	M.	48	2.00	2.00	2.00
	60	1899	106	M.	48	2.40	2.40	2.40
Cabinetmakers:								
New York, N. Y	49	1897	2	M.	48	2.00	2.25	2.12½
	49	1899	4	M.	48	2.25	2.50	2.37½
	49	1900	8	M.	48	2.50	2.75	2.62½
Carpenters:								
Atlanta, Ga	1	1892	15	M.	60	1.75	2.50	2.00
	1	1896	9	M.	60	1.50	2.50	1.86
	1	1899	7	M.	60	1.50	2.00	1.64½
	1	1900	20	M.	60	1.75	2.00	1.85
Augusta, Ga	3	1890	25	M.	60	1.25	2.00	1.59
	3	1900	27	M.	60	1.50	2.50	2.02
Birmingham, Ala	6	1890	450	M.	60	1.50	2.50	2.13
	6	1896	450	M.	60	1.25	2.50	2.13
	6	1898	500	M.	60	1.50	2.50	2.18½
	6	1899	800	M.	60	1.50	2.50	2.00
	6	1900	1,200	M.	54	2.00	3.00	2.50
Boston, Mass	13	1891	146	M.	54	2.25	2.40	2.26½
	13	1899	187	M.	48	2.40	2.64	2.41
	14	1891	20	M.	54	2.70	2.70	2.70
	14	1899	38	M.	48	2.50	2.50	2.50
Buffalo, N. Y	19	1891	125	M.	54	1.80	1.80	1.80
	19	1899	125	M.	54	1.80	2.02½	1.91½

a Information furnished by Cleveland Builders' Exchange.

b Not reported.

c Per hour.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BUILDING—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Carpenters—Concluded.								
Burlington, N. C	21	1890	10	M.	60	\$0.80	\$1.35	\$1.04 ^a
	21	1899	35	M.	60	.80	2.40	1.25 ^a
	21	1900	36	M.	60	.80	2.40	1.29
	22	1890	10	M.	60	.90	1.45	1.13 ^a
	22	1899	30	M.	60	.80	1.35	1.10
	22	1900	30	M.	60	.80	1.35	1.06 ^a
Charlotte, N. C	23	1890	17	M.	60	1.50	2.00	1.63
Chicago, Ill	26	1891	24	M.	48	2.80	2.80	2.80
	26	1893	53	M.	48	2.80	3.60	3.12
	26	1894	31	M.	48	2.40	2.80	2.71
	26	1896	35	M.	48	2.80	2.80	2.80
	26	1896	23	M.	48	3.00	3.00	3.00
	26	1897	21	M.	48	2.80	2.80	2.80
	26	1898	18	M.	48	3.00	3.00	3.00
	26	1899	19	M.	48	3.40	3.40	3.40
Cleveland, Ohio.....	a 31	1890	(b)	M.	60	2.25	2.75	(b)
	a 31	1895	(b)	M.	54	1.80	2.47 ^a	(b)
	a 31	1899	(b)	M.	54	2.02 ^a	2.70	(b)
	35	1890	13	M.	60	2.25	2.75	2.42 ^a
	35	1896	38	M.	54	1.80	2.47 ^a	2.02 ^a
	35	1899	25	M.	54	2.02 ^a	2.70	2.25
	38	1890	19	M.	54	2.25	2.47 ^a	2.33 ^a
	38	1891	27	M.	54	2.47 ^a	2.70	2.53 ^a
	38	1892	21	M.	54	2.25	2.70	2.49 ^a
	38	1894	20	M.	54	1.80	2.47 ^a	2.19 ^a
	38	1896	28	M.	54	2.02 ^a	2.47 ^a	2.19 ^a
	38	1899	31	M.	48	1.80	2.40	2.16
Greensboro, N. C	40	1890	50	M.	60	1.00	1.40	1.21
	40	1899	65	M.	60	1.25	1.50	1.36 ^a
	41	1890	15	M.	60	1.25	1.50	1.40
Los Angeles, Cal	43	1890	40	M.	48	3.00	3.00	3.00
	43	1892	40	M.	48	2.50	2.50	2.50
	43	1894	30	M.	48	2.25	2.25	2.25
	43	1897	60	M.	48	2.50	2.50	2.50
	43	1899	50	M.	48	3.00	3.00	3.00
New York, N. Y.....	49	1897	3	M.	48	2.50	3.00	2.66 ^a
	49	1900	20	M.	48	2.50	3.50	2.80
	50	1896	40	M.	54	3.00	3.00	3.00
	50	1894	50	M.	54	3.50	3.50	3.50
	50	1899	40	M.	44	2.98 ^a	2.98 ^a	2.98 ^a
	52	1891	8	M.	44	3.25	3.50	3.37 ^a
	52	1900	4	M.	44	3.50	4.00	3.75
Passaic, N. J.....	55	1894	40	M.	54	1.65	2.25	1.91
	55	1896	30	M.	53	2.00	2.50	2.22 ^a
	55	1900	30	M.	53	2.25	3.00	2.57 ^a
Philadelphia, Pa.....	61	1891	50	M.	54	2.50	2.70	2.64
	61	1900	25	M.	48	2.80	2.80	2.80
	63	1891	200	M.	54	2.70	3.00	2.73 ^a
	63	1900	150	M.	48	2.80	2.80	2.80
	65	1891	260	M.	54	3.00	3.00	3.00
	65	1892	275	M.	54	2.70	2.70	2.70
	65	1900	250	M.	48	2.80	2.80	2.80
Raleigh, N. C.....	67	1890	20	M.	60	1.25	1.75	1.43 ^a
	67	1895	17	M.	60	1.00	1.50	1.14 ^a
	67	1898	20	M.	60	1.25	1.75	1.43 ^a
San Francisco, Cal	69	1890	25	M.	48	2.50	3.25	2.96
	69	1894	20	M.	48	2.50	3.50	3.12 ^a
	69	1896	20	M.	48	2.00	3.00	2.63 ^a
	69	1899	22	M.	48	2.50	3.50	3.18
	69	1900	22	M.	48	3.00	3.50	3.27 ^a
Cornice setters:								
Philadelphia, Pa.....	57	1891	20	M.	54	2.75	2.75	2.75
Derrick men:								
Boston, Mass	13	1891	7	M.	54	2.25	2.25	2.25
	13	1893	11	M.	48	2.24	2.24	2.24
Engineers, stationary:								
Boston, Mass	13	1891	10	M.	54	2.66 ^a	2.66 ^a	2.66 ^a
	13	1899	14	M.	48	3.00	3.00	3.00

a Information furnished by Cleveland Builders' Exchange.

b Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BUILDING—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Foremen, carpenters:								
Boston, Mass.....	13	1891	6	M.	54	\$3.33 $\frac{1}{2}$	\$3.66 $\frac{1}{2}$	\$3.50
	13	1899	7	M.	48	3.66 $\frac{1}{2}$	4.00	3.85 $\frac{1}{2}$
Greensboro, N. C.....	40	1890	6	M.	60	1.75	1.75	1.75
	40	1899	10	M.	60	2.00	2.50	2.25
	41	1890	3	M.	60	1.75	1.75	1.75
	41	1899	2	M.	60	2.00	2.00	2.00
Foremen, masons:								
Boston, Mass.....	13	1891	5	M.	54	4.95	4.95	4.95
	13	1893	6	M.	48	4.40	4.40	4.40
	13	1899	7	M.	48	4.80	4.80	4.80
	13	1900	8	M.	48	4.80	4.95	4.88
Gas fitters:								
Buffalo, N. Y.....	16	1891	20	M.	54	2.25	2.25	2.25
	16	1894	22	M.	54	2.50	2.50	2.50
Chicago, Ill.....	24	1892	9	M.	44	3.43 $\frac{1}{2}$	3.43 $\frac{1}{2}$	3.43 $\frac{1}{2}$
	24	1894	6	M.	48	3.75	3.75	3.75
	24	1899	6	M.	44	3.66 $\frac{1}{2}$	3.66 $\frac{1}{2}$	3.66 $\frac{1}{2}$
Hod carriers:								
San Francisco, Cal.....	73	1890	12	M.	60	3.00	3.00	3.00
	73	1893	12	M.	54	3.00	3.00	3.00
Laborers:								
Greensboro, N. C.....	41	1890	4	M.	(a)	.75	.75	.75
	50	1893	5	M.	54	2.25	2.25	2.25
New York, N. Y.....	50	1896	6	M.	44	2.20	2.20	2.20
	50	1899	6	M.	44	2.45 $\frac{1}{2}$	2.45 $\frac{1}{2}$	2.45 $\frac{1}{2}$
Lathers:								
Los Angeles, Cal.....	44	1890	11	M.	48	b 1.25	b 1.25	b 1.25
	44	1897	8	M.	48	b 1.50	b 1.50	b 1.50
Masons, stone:								
Atlanta, Ga.....	1	1892	8	M.	60	2.00	3.00	2.89 $\frac{1}{2}$
	1	1899	4	M.	60	2.00	2.25	2.12 $\frac{1}{2}$
Boston, Mass.....	13	1891	16	M.	54	3.78	3.78	3.78
	13	1893	16	M.	48	3.86	3.86	3.86
	13	1898	18	M.	48	3.60	3.60	3.60
Buffalo, N. Y.....	15	1891	80	M.	60	3.33 $\frac{1}{2}$	3.33 $\frac{1}{2}$	3.33 $\frac{1}{2}$
	15	1894	65	M.	54	3.24	3.24	3.24
	15	1899	40	M.	54	3.00	3.60	3.25
	20	1892	52	M.	54	3.24	3.24	3.24
	20	1896	65	M.	48	2.88	2.88	2.88
	20	1899	60	M.	48	3.20	3.20	3.20
Los Angeles, Cal.....	46	1890	27	M.	48	4.00	4.00	4.00
	46	1892	25	M.	48	3.50	3.50	3.50
	46	1895	12	M.	48	3.00	3.00	3.00
	46	1900	20	M.	48	3.50	3.50	3.50
New York, N. Y.....	53	1891	100	M.	48	3.20	3.20	3.20
	53	1899	120	M.	44	2.93 $\frac{1}{2}$	2.93 $\frac{1}{2}$	2.93 $\frac{1}{2}$
Philadelphia, Pa.....	62	1891	104	M.	54	3.00	3.00	3.00
	62	1900	110	M.	48	3.00	3.00	3.00
Masons' helpers:								
Boston, Mass.....	13	1891	250	M.	54	2.25	2.25	2.25
	13	1893	340	M.	48	2.00	2.00	2.00
Buffalo, N. Y.....	15	1891	180	M.	60	1.25	1.25	1.25
	15	1894	212	M.	54	1.12 $\frac{1}{2}$	1.12 $\frac{1}{2}$	1.12 $\frac{1}{2}$
	15	1899	150	M.	54	1.35	2.25	1.75
	20	1892	145	M.	54	1.44	1.44	1.44
	20	1894	160	M.	54	1.35	1.35	1.35
	20	1896	200	M.	48	1.20	1.20	1.20
New York, N. Y.....	53	1891	95	M.	48	2.40	2.40	2.40
	53	1899	110	M.	44	2.42	2.42	2.42
Painters:								
Atlanta, Ga.....	1	1896	12	M.	60	1.50	2.00	1.54
	1	1899	8	M.	60	1.75	2.00	1.84 $\frac{1}{2}$
Birmingham, Ala.....	5	1892	150	M.	60	1.50	1.75	1.54
	5	1894	150	M.	60	1.50	2.00	1.58 $\frac{1}{2}$
	5	1899	200	M.	54	2.25	2.25	2.25
	5	1900	200	M.	54	2.25	2.50	2.28

a Not reported.

b Per 1,000.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BUILDING—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Painters—Concluded.								
Boston, Mass.....	12	1891	210	M.	60	\$2.50	\$2.50	\$2.50
	12	1892	230	M.	54	2.50	2.50	2.50
	12	1898	220	M.	48	2.40	2.40	2.40
	12	1899	235	M.	48	2.56	2.56	2.56
	13	1891	7	M.	54	2.25	2.50	2.35½
Buffalo, N. Y.....	13	1899	9	M.	48	2.50	2.75	2.61
	18	1891	70	M.	54	2.25	2.25	2.25
Chicago, Ill.....	27	1890	18	M.	48	2.20	2.20	2.20
	27	1892	20	M.	48	2.80	2.80	2.80
	27	1894	33	M.	48	2.20	2.40	2.31
	27	1897	17	M.	48	2.60	2.60	2.60
	27	1898	22	M.	48	2.80	2.80	2.80
	27	1899	20	M.	48	3.00	3.00	3.00
	27	1900	18	M.	48	3.20	3.20	3.20
	29	1890	10	M.	48	2.00	2.40	2.18
	29	1892	13	M.	48	2.20	2.60	2.41½
	29	1897	17	M.	48	2.40	3.20	2.69½
	29	1898	11	M.	48	2.40	3.20	2.65½
	29	1899	8	M.	48	2.40	3.00	2.85
	29	1900	6	M.	48	3.00	3.00	3.00
Cleveland, Ohio.....	34	1890	60	M.	54	2.25	2.47½	2.42
	34	1894	39	M.	54	1.80	2.02½	1.95½
	34	1897	50	M.	48	1.80	2.00	1.94½
	34	1899	50	M.	48	2.00	2.00	2.00
Greensboro, N. C.....	41	1890	4	M.	60	1.00	1.50	1.25
	41	1899	5	M.	60	1.25	1.50	1.40
New York, N. Y.....	48	1891	25	M.	47	3.50	3.50	3.50
Passaic, N. J.....	54	1891	20	M.	54	2.25	2.50	2.30
Philadelphia, Pa.....	54	1900	50	M.	53	2.50	2.50	2.50
	58	1891	30	M.	60	2.50	3.00	2.83½
	58	1899	30	M.	48	2.80	2.80	2.80
	64	1891	10	M.	54	2.25	2.70	2.54
	64	1899	10	M.	48	2.80	2.80	2.80
San Francisco, Cal.....	70	1877	6	M.	60	2.50	3.50	3.00
	70	1880	15	M.	60	3.00	3.00	3.00
	70	1886	20	M.	48	2.50	2.50	2.50
	70	1888	90	M.	48	3.00	3.00	3.00
	70	1893	90	M.	48	2.50	2.50	2.50
	70	1899	15	M.	48	3.00	3.00	3.00
Plasterers:								
Atlanta, Ga.....	1	1896	15	M.	60	1.50	2.50	1.80½
	1	1899	20	M.	60	1.50	2.50	1.85
Birmingham, Ala.....	4	1891	50	M.	60	3.50	3.50	3.50
	4	1894	35	M.	60	2.50	3.00	2.75½
	4	1899	30	M.	54	2.00	2.50	2.25
	4	1900	37	M.	48	4.00	4.00	4.00
Boston, Mass.....	8	1891	130	M.	54	3.78	3.78	3.78
	8	1899	200	M.	48	3.60	3.60	3.60
	13	1891	24	M.	54	3.37½	3.37½	3.37½
Buffalo, N. Y.....	13	1896	34	M.	48	3.44	3.44	3.44
	15	1891	20	M.	60	3.35	3.35	3.35
	15	1894	40	M.	54	3.00	3.00	3.00
	15	1899	30	M.	54	3.00	3.60	3.25
	17	1891	35	M.	54	3.00	3.00	3.00
	17	1893	40	M.	54	3.24	3.24	3.24
	17	1899	28	M.	48	2.88	2.88	2.88
Chicago, Ill.....	20	1892	24	M.	54	3.24	3.24	3.24
	20	1898	22	M.	48	2.88	2.88	2.88
	25	1890	12	M.	48	3.50	3.50	3.50
	25	1892	20	M.	48	4.00	4.00	4.00
	25	a 1893	25	M.	48	5.00	6.00	5.24
	25	b 1893	7	M.	48	4.00	4.00	4.00
	25	1894	16	M.	48	3.50*	3.50	3.50
	25	1898	20	M.	48	2.50	3.00	2.65
	25	1899	26	M.	48	3.50	4.00	3.77
	25	1900	8	M.	48	4.00	4.00	4.00
	28	1890	36	M.	48	3.50	3.50	3.50
	28	1892	50	M.	48	4.00	4.00	4.00

a For first four months.

b For last eight months.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BUILDING—Continued.

Occupation and location.	Estab- lish- ment num- ber.	First year and years of change.	Num- ber of em- ploy- ees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Plasterers—Concluded.								
Chicago, Ill.—Concluded ...	28	a 1893	150	M.	48	\$6.00	\$6.00	\$6.00
	28	b 1893	20	M.	48	3.00	3.00	3.00
	28	1894	20	M.	48	3.50	3.50	3.50
	28	1899	18	M.	48	4.00	4.00	4.00
	30	1890	20	M.	48	3.50	3.50	3.50
	30	1892	21	M.	48	4.00	5.00	4.64½
	30	1893	18	M.	48	3.50	4.00	3.64
	30	1894	23	M.	48	3.50	3.50	3.50
	30	1899	7	M.	48	4.00	4.00	4.00
Cleveland, Ohio.....	c 37	1890	(d)	M.	54	3.50	3.50	3.50
	c 37	1894	(d)	M.	54	3.00	3.00	3.00
	c 37	1896	(d)	M.	54	2.50	2.50	2.50
	c 37	1897	(d)	M.	48	3.00	3.00	3.00
Greensboro, N. C.	40	1890	20	M.	60	1.75	2.00	1.87½
	40	1897	21	M.	60	1.75	2.25	1.99
	40	1899	30	M.	60	1.75	2.50	2.12½
Los Angeles, Cal.	44	1890	11	M.	48	4.00	4.00	4.00
	44	1893	15	M.	48	3.00	3.00	3.00
New York, N. Y.	53	1891	35	M.	48	4.00	4.00	4.00
	53	1896	38	M.	44	4.00	4.00	4.00
	53	1899	40	M.	44	4.50	4.50	4.50
Philadelphia, Pa.	59	1891	100	M.	48	3.20	3.20	3.20
	59	1894	100	M.	48	3.60	3.60	3.60
	59	1896	100	M.	48	3.20	3.20	3.20
San Francisco, Cal.	71	1890	15	M.	48	5.00	5.00	5.00
	71	1896	10	M.	48	3.00	3.00	3.00
	71	1898	15	M.	48	4.00	4.00	4.00
	71	1900	20	M.	48	4.50	4.50	4.50
Plasterers' helpers:								
Boston, Mass.	8	1891	100	M.	54	2.53	2.53	2.53
	8	1899	150	M.	48	2.50	2.50	2.50
	13	1891	18	M.	54	2.25	2.25	2.25
	13	1896	25	M.	48	2.00	2.00	2.00
Los Angeles, Cal.	44	1890	5	M.	54	2.75	2.75	2.75
	44	1892	5	M.	54	2.50	2.50	2.50
	44	1897	5	M.	54	2.00	2.00	2.00
Philadelphia, Pa.	59	1891	30	M.	48	2.50	2.50	2.50
Plumbers:								
Boston, Mass.	10	1891	60	M.	60	4.00	4.00	4.00
	10	1896	65	M.	54	4.00	4.00	4.00
	10	1899	58	M.	48	3.75	3.75	3.75
	11	1891	8	M.	54	1.50	3.50	2.98½
	11	1892	9	M.	54	4.00	4.00	4.00
	11	1896	10	M.	48	3.75	3.75	3.75
Buffalo, N. Y.	16	1891	17	M.	54	2.50	2.50	2.50
	16	1894	25	M.	54	3.00	3.00	3.00
	16	1899	22	M.	54	2.50	2.50	2.50
Chicago, Ill.	24	1892	81	M.	44	3.43½	4.12½	3.51½
	24	1893	87	M.	48	3.75	4.50	3.82½
	24	1894	19	M.	48	3.75	4.50	3.80½
	24	1896	27	M.	48	3.75	3.85	3.77½
	24	1896	32	M.	48	3.75	4.25	3.79
	24	1897	17	M.	48	3.75	4.00	3.80½
	24	1899	21	M.	44	3.66½	3.89½	3.69
Cleveland, Ohio.....	32	1893	16	M.	60	2.80	3.33½	3.08½
	32	1896	24	M.	60	2.81½	3.33½	3.00½
	32	1899	20	M.	48	2.25	2.66½	2.38
	33	1892	13	M.	48	2.00	3.50	2.75
	33	1894	22	M.	48	1.75	3.50	2.47½
	33	1896	8	M.	48	2.00	3.50	2.62½
	33	1898	12	M.	48	2.00	3.50	2.66½
	33	1899	13	M.	48	2.25	3.50	2.98
	36	1893	14	M.	54	2.00	3.50	3.09
	36	1894	12	M.	54	2.00	3.50	2.90
	36	1896	18	M.	54	1.98	3.60	2.81
	36	1898	19	M.	54	2.25	3.15	2.67½
	36	1897	22	M.	48	2.00	2.80	2.29

a For first four months.

b For last eight months.

c Information furnished by Cleveland Builders' Exchange.

d Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BUILDING—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Plumbers—Concluded.								
Cleveland, Ohio—Concl'd....	36	1898	17	M.	48	\$2.00	\$3.00	\$2.50½
	36	1899	10	M.	48	2.25	3.00	2.92½
New York, N. Y.....	51	1890	40	M.	48	3.50	3.50	3.50
Philadelphia, Pa.....	66	1891	8	M.	54	3.00	3.50	3.31½
San Francisco, Cal.....	74	1880	2	M.	60	4.00	4.00	4.00
	74	1898	6	M.	48	3.50	3.50	3.50
	74	1899	6	M.	48	4.00	4.00	4.00
Plumbers' helpers:								
Boston, Mass.....	10	1891	60	M.	60	1.00	1.00	1.00
	10	1895	65	M.	54	1.00	1.00	1.00
	10	1899	58	M.	48	1.00	1.00	1.00
	11	1891	8	M.	54	1.00	1.17	1.02
	11	1892	9	M.	54	1.00	1.00	1.00
	11	1895	10	M.	48	1.00	1.00	1.00
New York, N. Y.....	51	1890	40	M.	48	.83½	1.25	1.06½
San Francisco, Cal.....	74	1880	2	M.	60	1.00	1.00	1.00
	74	1898	6	M.	48	1.00	1.00	1.00
Roofers, asphalt:								
San Francisco, Cal.....	72	1891	8	M.	54	2.25	3.00	2.53
Roofers, slate and tile:								
Philadelphia, Pa.....	57	1891	10	M.	54	3.00	3.00	3.00
Roofers, tin:								
Philadelphia, Pa.....	57	1891	20	M.	54	2.50	2.50	2.50
Steam fitters:								
Boston, Mass.....	7	1891	14	M.	60	2.50	3.00	2.64½
	7	1894	13	M.	54	2.50	3.00	2.65½
	7	1897	14	M.	48	3.00	3.50	3.14½
Buffalo, N. Y.....	15	1891	10	M.	54	2.50	2.50	2.50
	15	1894	13	M.	54	3.00	3.00	3.00
	15	1899	12	M.	54	2.50	2.50	2.50
Cleveland, Ohio.....	36	1898	8	M.	54	2.00	4.00	3.03
	36	1894	9	M.	54	2.10	3.60	2.79
	36	1895	10	M.	54	2.07	3.27	2.76
	36	1896	11	M.	54	2.25	3.27	2.73
	36	1897	8	M.	48	2.00	2.80½	2.22½
	36	1899	11	M.	48	3.00	3.00	3.00
New York, N. Y.....	47	1891	36	M.	48	3.50	3.50	3.50
	47	1897	38	M.	48	3.75	3.75	3.75
Steam fitters' helpers:								
Boston, Mass.....	7	1891	14	M.	60	1.75	1.75	1.75
	7	1894	13	M.	54	1.75	1.75	1.75
	7	1897	14	M.	48	1.75	1.75	1.75
	7	1900	13	M.	48	2.00	2.00	2.00
New York, N. Y.....	47	1891	36	M.	48	2.00	2.00	2.00
	47	1897	38	M.	48	2.15	2.15	2.15
Structural iron workers:								
Boston, Mass.....	9	1891	16	M.	58½	2.25	3.15	2.54½
	9	1895	16	M.	51	2.12½	2.97½	2.40
	13	1898	28	M.	48	2.28	2.28	2.28
Philadelphia, Pa.....	65	1891	70	M.	54	2.50	2.50	2.50
	65	1900	75	M.	48	2.50	2.50	2.50
Structural iron workers' helpers:								
Boston, Mass.....	9	1891	14	M.	58½	1.80	2.07	1.87½
	9	1895	14	M.	51	1.70	1.95½	1.77½
Teamsters:								
Buffalo, N. Y.....	19	1891	6	M.	60	1.50	1.50	1.50

BUTTONS, PEARL.

Backers:								
New York, N. Y.....	2	1896	10	M.	59	\$1.33½	\$2.16½	\$1.66½
Corders:								
New York, N. Y.....	1	1896	45	F.	56	.91½	1.16½	.96
Cutters:								
New York, N. Y.....	1	1896	60	M.	59	1.56½	2.16½	1.70
	1	1899	90	M.	59	1.66½	2.33½	1.83½
	2	1896	10	M.	59	1.66½	2.50	2.08½

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

BUTTONS, PEARL—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Drillers:								
New York, N. Y.....	2	1896	20	F.	59	\$0.83½	\$1.33½	\$1.04
Finishers, blank:								
New York, N. Y.....	1	1896	47	F.	59	1.00	1.16½	1.06½
	1	1898	47	F.	59	.83½	1.00	.91½
	1	1899	47	F.	59	1.00	1.16½	1.06½
Sorters:								
New York, N. Y.....	1	1896	8	F.	59	1.06½	1.33½	1.20
Turners:								
New York, N. Y.....	2	1896	10	(a)	59	1.33½	2.00	1.66½

CARPETS.

Dyers:								
Philadelphia, Pa.....	4	1891	89	M.	60	\$0.22	\$2.11	\$1.43½
	4	1892	86	M.	60	.87½	2.20	1.49½
	4	1893	93	M.	60	.21	1.25	.44½
	4	1894	92	M.	60	.20½	1.49	.94
	4	1896	88	M.	60	.36	2.19½	1.34½
	4	1896	81	M.	60	.21	1.72	.62
	4	1897	59	M.	60	.64½	2.32	1.58
	4	1898	65	M.	60	.60	2.17½	1.52½
	4	1899	64	M.	60	.49	2.32	1.74½
	4	1900	62	M.	60	.62½	2.25½	1.69
Fillers:								
New York, N. Y.....	1	1891	20	F.	60	.78½	.98½	.89½
	1	1898	20	F.	60	.78½	.97	.89
	1	1899	20	F.	60	.77	1.01½	.98½
	1	1900	20	F.	60	.81	1.07½	.99
Foremen, dyers:								
Philadelphia, Pa.....	4	1891	3	M.	60	2.33½	6.66½	4.11
	4	1892	3	M.	60	2.50	6.66½	4.16½
	4	1893	2	M.	60	3.33½	6.66½	5.00
	4	1896	4	M.	60	2.50	6.66½	3.75
	4	1896	2	M.	60	3.33½	6.66½	5.00
	4	1897	4	M.	60	2.50	6.66½	3.75
Loom fixers:								
New York, N. Y.....	1	1891	15	M.	60	1.66½	2.73½	2.43½
	1	1899	15	M.	60	1.75	2.85½	2.54
	1	1900	15	M.	60	1.83½	3.00	2.66½
Weavers:								
New York, N. Y.....	1	1891	78	F.	60	.90	1.45½	1.19
	1	1896	78	F.	60	.89½	1.46	1.19½
	1	1899	78	F.	60	.94	1.53	1.24½
	1	1900	86	F.	60	.96½	1.76	1.33
	1	1891	12	(b)	60	1.71½	2.13½	1.86½
	1	1896	12	(b)	60	1.71	2.10½	1.85½
	1	1899	12	(b)	60	1.79	2.20½	1.94½
	1	1900	10	(b)	60	1.88	2.31½	2.04
Philadelphia, Pa.....	2	1891	7	(a)	60	1.00½	1.58½	1.39½
	2	1892	12	(a)	60	.97½	2.23	1.46
	2	1893	9	(a)	60	.96½	1.63	1.40½
	2	1894	7	(a)	60	.43½	1.26½	.78½
	2	1896	7	(a)	60	.78½	1.61	1.31
	2	1896	8	(a)	60	.85	1.80	1.22
	2	1897	10	(a)	60	.96	1.81½	1.42½
	2	1898	27	(a)	60	.92½	1.80½	1.38½
	2	1899	25	(a)	60	1.04½	2.20½	1.45½
	2	1900	27	(a)	60	.93½	1.84	1.47
	3	1891	16	(a)	60	.50½	1.91	1.23
	3	1892	21	(a)	60	.63	1.94½	1.29
	3	1893	27	(a)	60	.49	2.18½	1.30½
	3	1894	29	(a)	60	.33½	1.99½	1.39½
	3	1896	29	(a)	60	.49½	2.14½	1.39
	3	1896	29	(a)	60	1.31	2.29	1.85
	3	1897	29	(a)	60	1.23	2.56½	1.86
	3	1898	29	(a)	60	1.19	2.70½	2.17½
	3	1899	29	(a)	60	1.39½	2.80	1.96½
	3	1900	47	(a)	60	1.32	2.79	2.04½

a Both sexes.

b Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

CARPETS—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Winders:								
Philadelphia, Pa.	2	1891	3	F.	60	\$0.69½	\$0.78	\$0.75
	2	1892	3	F.	60	1.25½	1.33½	1.30
	2	1893	3	F.	60	.82½	1.02½	.91½
	2	1894	2	F.	60	.97	1.02½	.99½
	2	1895	2	F.	60	.57	1.19½	.68½
	2	1896	2	F.	60	.78½	1.02	.90½
	2	1897	2	F.	60	1.19½	1.49	1.34½
	2	1898	12	F.	60	.61½	1.39½	1.08½
	2	1899	10	F.	60	.84	1.88½	1.14
	2	1900	12	F.	60	.73½	1.90½	1.25½
	3	1891	5	F.	60	1.25½	1.84½	1.64½
	3	1892	7	F.	60	.89	1.74	1.24½
	3	1893	8	F.	60	1.14½	2.00	1.47
	3	1894	10	F.	60	.37	1.34½	.97
	3	1896	10	F.	60	.91	1.21½	1.06½
	3	1896	10	F.	60	.22	.88½	.67
	3	1897	10	F.	60	.97	1.50	1.31
	3	1898	10	F.	60	.94½	1.77	1.45½
	3	1899	10	F.	60	1.11	1.66½	1.40½
	3	1900	16	F.	60	1.07½	1.69½	1.42½
Winders, cop:								
New York, N. Y.	1	1891	6	F.	60	.74	1.09	1.00
	1	1896	6	F.	60	.74½	1.07½	.99½
	1	1899	6	F.	60	.78	1.13½	1.04½
	1	1900	6	F.	60	.82½	1.19½	1.10
Winders, cotton:								
New York, N. Y.	1	1891	4	F.	60	.99½	1.31½	1.17½
	1	1898	4	F.	60	.99	1.32	1.17
	1	1899	4	F.	60	1.04½	1.39½	1.23½
	1	1900	4	F.	60	1.10	1.46½	1.30

CARRIAGES AND WAGONS.

Blacksmiths:								
Atlanta, Ga.	1	1890	4	M.	60	\$2.25	\$3.00	\$2.43½
	1	1893	2	M.	60	2.00	2.00	2.00
	1	1897	4	M.	60	2.00	2.50	2.12½
Birmingham, Ala.	2	1890	2	M.	60	2.50	3.00	2.75
	2	1894	1	M.	60	2.50	2.50	2.50
	2	1899	3	M.	60	2.00	2.50	2.33½
Boston, Mass.	3	1891	2	M.	58	3.00	3.00	3.00
	3	1894	2	M.	53	3.00	3.00	3.00
Worcester, Mass.	4	1891	11	M.	59	1.00	3.00	2.04½
	4	1899	17	M.	59	1.00	4.66½	1.77
	4	1900	19	M.	59	1.75	4.66½	2.09
Blacksmiths' helpers:								
Atlanta, Ga.	1	1890	7	M.	60	.83½	1.33½	1.07
	1	1893	4	M.	60	1.00	1.00	1.00
	1	1897	7	M.	60	.83½	1.23½	1.07
Boston, Mass.	3	1891	2	M.	58	2.25	2.25	2.25
	3	1894	2	M.	53	2.25	2.25	2.25
Painters:								
Birmingham, Ala.	2	1890	3	M.	60	1.50	3.00	2.16½
Boston, Mass.	3	1891	7	M.	58	2.25	3.00	2.57
	3	1894	7	M.	53	2.25	3.00	2.57
Smoothers, wood:								
Boston, Mass.	3	1891	5	M.	58	2.00	2.00	2.00
	3	1894	5	M.	53	2.00	2.00	2.00
Trimmers:								
Boston, Mass.	3	1891	4	M.	58	2.50	3.00	2.75
	3	1894	4	M.	53	2.50	3.00	2.75
Woodworkers:								
Boston, Mass.	3	1891	2	M.	58	3.00	3.00	3.00
	3	1894	2	M.	53	3.00	3.00	3.00

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

CIGARS.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Cigar makers:								
Boston, Mass	1	1891	33	M.	(a)	\$1.73½	\$9.06	\$2.79
	1	1892	45	M.	(a)	1.86½	13.20½	2.61½
	1	1893	46	M.	(a)	1.71½	5.12½	2.68½
	1	1894	56	M.	(a)	1.70	5.09½	3.13½
	1	1895	63	M.	(a)	1.75	4.94	2.33½
	1	1896	75	M.	(a)	1.75	4.75	2.66
	1	1897	85	M.	(a)	1.62½	5.00	2.78
	1	1898	78	M.	(a)	1.50	4.99½	2.74½
	1	1899	86	M.	(a)	1.25	5.75	2.96
	1	1900	111	M.	(a)	1.37½	5.25	3.30½
	2	1891	54	M.	(a)	2.00	5.00	3.00
	2	1899	323	M.	(a)	2.00	5.00	3.12½
	2	1900	323	M.	(a)	2.00	5.00	3.16
Strippers:								
Boston, Mass	1	1893	12	F.	54	.88½	1.33½	1.06½
	1	1894	19	F.	54	.69	1.16½	.92½
	1	1895	18	F.	54	.48½	1.16½	.90
	1	1896	20	F.	54	.83½	1.36½	1.07½
	1	1897	22	F.	54	.64½	1.11	.91
	1	1898	19	F.	54	.63½	1.16½	.92½
	1	1899	27	F.	54	.66	1.50	.92½
	1	1900	40	F.	54	.54½	1.50	.90
Strippers, binder:								
Boston, Mass	2	1891	5	F.	53	.91½	.91½	.91½
	2	1899	30	F.	53	.83½	1.00	.93
	2	1900	30	F.	47	1.00	1.00	1.00
Strippers, filler:								
Boston, Mass	2	1891	5	F.	53	.58½	1.25	.78½
	2	1899	20	F.	53	.58	1.23	.79
	2	1900	20	F.	47	.59	1.26½	.79
Strippers, wrapper:								
Boston, Mass	2	1891	5	F.	53	1.16½	1.33½	1.25

CLOTHING.

Cutters:								
Atlanta, Ga	1	1892	1	M.	60	\$2.50	\$2.50	\$2.50
	1	1896	4	M.	60	1.66½	3.00	2.46½
	1	1899	3	M.	60	1.75	2.50	2.00
Charlotte, N. C.	2	1894	3	M.	60	.85	1.66½	1.12
	2	1899	3	M.	60	1.10	2.25	1.61½
	2	1900	3	M.	60	1.10	3.00	1.91½
Pressers:								
Atlanta, Ga	1	1892	2	M.	60	.66½	2.50	1.58½
	1	1896	6	M.	60	1.00	1.00	1.00
Charlotte, N. C.	2	1894	4	M.	60	.75	1.15	.96
	2	1899	7	M.	60	.86½	1.30	1.08½
Sewing-machine operators:								
Atlanta, Ga	1	1892	40	F.	60	.35	.75	.64
	1	1896	75	F.	60	.35	1.00	.65
	1	1899	150	F.	60	.40	1.12½	.72½
Charlotte, N. C.	2	1894	16	F.	60	.68	.92	.80½
	2	1899	24	F.	60	.74	1.52	.97
	3	1892	40	F.	60	.37½	1.00	.68
	3	1899	45	F.	60	.40	1.15	.65½

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

COOPERAGE.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Coopers:								
Boston, Mass.....	1	1891	45	M.	59	\$2.50	\$5.83½	\$3.62½
	1	1899	48	M.	59	2.50	5.83½	3.66½
Niagara Falls, N. Y.....	2	1898	35	M.	57	1.00	2.00	1.50
	2	1898	42	M.	48	.83½	1.66½	1.25
	2	1899	42	M.	48	1.00	1.83½	1.37½
	2	1900	42	M.	48	1.04	1.91½	1.41½

COTTON GOODS.

Beamers:								
Concord, N. C	8	1890	5	M.	69	\$1.30	\$1.90	\$1.54½
	8	1899	5	M.	69	1.30	1.90	1.55
Bleachers:								
Concord, N. C	8	1890	46	M.	69	.75	1.25	.90
Carders:								
Augusta, Ga.....	3	1890	25	M.	66	.75	1.00	.87½
	3	1899	26	M.	66	.70	.90	.79
	3	1900	28	M.	66	.75	.90	.83½
	4	1890	22	M.	66	.81	.90	.86
	4	1899	26	M.	66	.75	.80	.78
	4	1900	26	M.	66	.80	.85	.83
Burlington, N. C	6	1895	2	M.	66	.75	.75	.75
Concord, N. C	8	1890	12	M.	69	.75	.75	.75
Greensboro, N. C	11	1897	16	M.	66	.60	1.00	.71
Pelzer, S. C	13	1890	208	(a)	66	.40	1.10	.64
	13	1891	215	(a)	66	.35	1.15	.61
	13	1892	212	(a)	66	.40	1.10	.64
	13	1893	209	(a)	66	.35	1.00	.63
	13	1894	204	(a)	66	.35	1.05	.62
	13	1895	215	(a)	66	.40	1.05	.61
	13	1896	318	(a)	66	.40	1.00	.64
	13	1897	345	(a)	66	.40	1.30	.77
	13	1898	358	(a)	66	.40	1.30	.74
	13	1899	358	(a)	66	.40	1.35	.74
Raleigh, N. C	14	1890	4	M.	66	.75	.83½	.79
	14	1894	4	M.	66	.67½	.73½	.70½
	14	1896	7	M.	66	.75	.83½	.78½
	14	1899	22	M.	(b)	.75	1.00	.85
Card grinders:								
Atlanta, Ga	1	1890	4	M.	66	1.25	1.40	1.28½
Augusta, Ga.....	3	1890	6	M.	66	1.30	1.30	1.30
	3	1899	6	M.	66	1.25	1.25	1.25
	3	1900	5	M.	66	1.35	1.40	1.37
	4	1890	11	M.	66	1.30	1.30	1.30
	4	1899	10	M.	66	1.00	1.30	1.27
	4	1900	10	M.	66	1.05	1.35	1.32
Concord, N. C	8	1890	8	M.	69	1.00	1.25	1.09½
Doffers:								
Atlanta, Ga	1	1890	24	M.	66	.40	.50	.46
Augusta, Ga.....	3	1890	29	M.	66	.35	.40	.38½
	3	1899	28	M.	66	.30	.40	.32½
	3	1900	29	M.	66	.35	.45	.40
	4	1890	36	M.	66	.35	.50	.44
	4	1899	40	M.	66	.30	.45	.40
	4	1900	40	M.	66	.35	.50	.45
Ramseur, N. C	15	1890	11	M.	69	.30	.45	.36½
	15	1899	14	M.	69	.25	.40	.30½
	15	1900	15	M.	69	.25	.40	.31½
Dyers:								
Burlington, N. C	5	1890	2	M.	66	.75	.75	.75
Engineers, stationary:								
Charlotte, N. C	7	1890	2	M.	66	1.25	2.00	1.62½
Concord, N. C	8	1890	4	M.	69	1.00	1.50	1.25
Greensboro, N. C	11	1897	1	M.	66	2.00	2.00	2.00
	11	1899	2	M.	66	2.00	2.50	2.25

a Not reported.

b 11 worked 60 and 11 worked 66 hours per week.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

COTTON GOODS—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Engineers, stationary—Concl'd.								
Raleigh, N. C.	14	1890	1	M.	66	\$2.25	\$2.25	\$2.25
	14	1894	1	M.	66	2.02½	2.02½	2.02½
	14	1896	1	M.	66	3.00	3.00	3.00
	14	1899	2	M.	(a)	2.66½	3.00	2.83½
Foremen, dyers:								
Burlington, N. C.	5	1890	1	M.	66	1.25	1.25	1.25
	5	1893	1	M.	66	1.35	1.35	1.35
	5	1899	1	M.	66	1.50	1.50	1.50
Loom fixers:								
Augusta, Ga.	3	1890	9	M.	66	1.50	1.50	1.50
	3	1899	9	M.	66	1.40	1.45	1.44
	3	1900	9	M.	66	1.50	1.55	1.54
	4	1890	6	M.	66	.75	1.50	1.37½
	4	1899	5	M.	66	.90	1.50	1.38
	4	1900	5	M.	66	1.50	1.50	1.50
Charlotte, N. C.	7	1890	4	M.	66	1.25	1.40	1.36½
Concord, N. C.	8	1890	12	M.	69	1.50	1.50	1.50
Franklinville, N. C.	10	1890	2	M.	69	.75	1.12½	.93½
	10	1894	2	M.	69	.75	1.00	.87½
	10	1899	3	M.	69	1.00	1.00	1.00
Greensboro, N. C.	11	1897	3	M.	66	1.50	1.50	1.50
Greenville, S. C.	12	1890	3	M.	66	1.50	1.75	1.58½
	12	1899	6	M.	66	1.75	1.75	1.75
Ramseur, N. C.	15	1890	4	M.	69	.75	1.25	.97½
	15	1899	4	M.	69	.96	1.25	1.03½
Overseers, carding department:								
Augusta, Ga.	3	1890	1	M.	66	4.00	4.00	4.00
	4	1890	1	M.	66	4.00	4.00	4.00
	4	1899	1	M.	66	3.00	3.00	3.00
Greensboro, N. C.	11	1897	1	M.	66	2.00	2.00	2.00
Overseers, spinning department:								
Atlanta, Ga.	2	1890	1	M.	66	2.50	2.50	2.50
	2	1896	3	M.	66	3.00	3.00	3.00
Augusta, Ga.	3	1890	1	M.	66	3.50	3.50	3.50
	4	1890	1	M.	66	4.00	4.00	4.00
Charlotte, N. C.	7	1890	2	M.	66	1.25	2.75	2.00
Concord, N. C.	8	1890	2	M.	69	1.50	3.00	2.25
	8	1899	3	M.	69	1.50	3.50	2.16½
Franklinville, N. C.	10	1890	1	M.	69	1.12½	1.12½	1.12½
	10	1899	1	M.	69	1.25	1.25	1.25
Ramseur, N. C.	15	1890	1	M.	69	2.25	2.25	2.25
	15	1899	1	M.	69	2.50	2.50	2.50
Overseers, weaving department:								
Atlanta, Ga.	2	1890	1	M.	66	2.50	2.50	2.50
	2	1896	2	M.	66	3.00	3.00	3.00
Augusta, Ga.	3	1890	1	M.	66	3.50	3.50	3.50
	4	1890	1	M.	66	3.50	3.50	3.50
	4	1899	1	M.	66	2.75	2.75	2.75
	4	1900	1	M.	66	3.00	3.00	3.00
Charlotte, N. C.	7	1890	1	M.	66	2.66½	2.66½	2.66½
Concord, N. C.	8	1890	3	M.	69	2.50	3.00	2.75
Franklinville, N. C.	10	1890	1	M.	69	1.50	1.50	1.50
	10	1894	1	M.	69	1.25	1.25	1.25
	10	1899	1	M.	69	1.75	1.75	1.75
Greensboro, N. C.	11	1897	1	M.	66	2.00	2.00	2.00
Ramseur, N. C.	15	1890	1	M.	66	2.25	2.25	2.25
	15	1899	1	M.	69	2.75	2.75	2.75
Picker tenders:								
Concord, N. C.	8	1890	15	M.	69	.70	.70	.70
Speeder tenders:								
Atlanta, Ga.	1	1890	12	F.	66	.70	.70	.70
Burlington, N. C.	6	1895	4	F.	66	.70	.70	.70
Concord, N. C.	8	1890	15	F.	69	.65	.90	.73½
Raleigh, N. C.	14	1890	7	F.	66	.68½	1.00	.64½
	14	1894	7	F.	66	.62½	.90	.58
	14	1896	11	F.	66	.96	.96	.96
	14	1899	22	F.	(b)	.96	.96	.96

a 1 worked 60 and 1 worked 66 hours per week.

b 11 worked 60 and 11 worked 66 hours per week.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

COTTON GOODS—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Spinners:								
Atlanta, Ga.	1	1890	47	F.	66	\$0.30	\$0.75	\$0.48
	1	1899	49	F.	66	.30	.76	.49
	1	1900	51	F.	66	.30	.76	.50
	2	1890	43	F.	66	.23	.55	.37
	2	1896	146	F.	66	.21	.66	.38
	2	1899	144	F.	66	.21	.66	.39
Augusta, Ga.	3	1890	77	F.	66	.40	.80	.63
	3	1899	83	F.	66	.30	.60	.52
	3	1900	79	F.	66	.33	.77	.59
	4	1890	74	F.	66	.35	.80	.69
	4	1899	79	F.	66	.30	.80	.61
	4	1900	79	F.	66	.33	.88	.67
Burlington, N. C.	6	1895	8	F.	66	.50	.50	.50
Charlotte, N. C.	7	1890	25	F.	66	.40	.60	.48
Concord, N. C.	8	1890	96	F.	69	.40	.80	.50
	8	1899	100	F.	69	.50	1.00	.62
Franklinville, N. C.	10	1890	22	F.	69	.40	.40	.40
	10	1898	23	F.	69	.40	.50	.43
	10	1899	23	F.	69	.40	.60	.43
	10	1900	28	F.	69	.30	.60	.42
Greensboro, N. C.	11	1897	21	(a)	66	.30	.50	.37
Greenville, S. C.	12	1891	30	F.	66	.32	.48	.39
	12	1896	31	F.	66	.36	.54	.43
	12	1899	36	F.	66	.36	.54	.44
Pelzer, S. C.	13	1890	238	(a)	66	.18	.49	.40
	13	1891	365	(a)	66	.17	.42	.41
	13	1892	378	(a)	66	.17	.42	.42
	13	1893	315	(a)	66	.17	.47	.45
	13	1894	332	(a)	66	.17	.47	.46
	13	1895	349	(a)	66	.19	.57	.46
	13	1896	564	(a)	66	.22	.66	.56
	13	1897	604	(a)	66	.20	.66	.56
Raleigh, N. C.	14	1890	6	M.	66	1.75	1.75	1.75
	14	1894	6	M.	66	1.57	1.57	1.57
	14	1896	12	M.	66	1.67	1.67	1.67
	14	1899	24	M.	(b)	1.67	1.67	1.67
Ramseur, N. C.	15	1890	52	F.	69	.25	.50	.38
	15	1899	64	F.	69	.25	.50	.41
Spinners, frame:								
Fall River, Mass.	9	1893	33	F.	58	.64	1.06	.92
	9	1894	29	F.	58	.57	.95	.77
	9	1895	29	F.	58	.64	1.06	.90
	9	1898	24	(c)	58	.56	.94	.85
	9	1899	22	(d)	58	.64	1.06	.83
	9	1900	25	(e)	58	.70	1.17	.96
Spinners, mule:								
Fall River, Mass.	9	1893	21	M.	58	1.58	1.89	1.77
	9	1894	21	M.	58	1.50	1.70	1.57
	9	1895	22	M.	58	1.59	1.88	1.63
	9	1898	21	M.	58	1.46	1.60	1.51
	9	1899	17	M.	58	1.67	1.81	1.79
	9	1900	15	M.	58	1.80	1.92	1.87
Spoolers:								
Charlotte, N. C.	7	1890	10	F.	66	.50	.65	.57
Weavers:								
Atlanta, Ga.	1	1890	29	M.	66	.52	1.10	.77
	1	1899	29	M.	66	.52	1.10	.79
	1	1900	29	M.	66	.52	1.10	.79
	1	1890	39	F.	66	.51	1.00	.74
	1	1899	40	F.	66	.51	1.00	.76
	1	1900	40	F.	66	.51	1.00	.75
	2	1890	83	M.	66	.50	.90	.67
	2	1896	140	M.	66	.50	1.20	.83
	2	1899	125	M.	66	.50	1.20	.83
	2	1900	133	M.	66	.50	1.20	.84
	2	1890	52	F.	66	.50	.90	.66

a Not reported.

b 12 worked 60 and 12 worked 66 hours per week.

c 2 males, 22 females.

d 9 males, 13 females.

e 4 males, 21 females.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

COTTON GOODS—Concluded.

Occupation and location.	Estab- lish- ment num- ber.	First year and years of change.	Num- ber of em- ploy- ees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Weavers—Concluded.								
Atlanta, Ga.—Concluded ...	2	1896	149	F.	66	\$0.50	\$1.20	\$0.804
	2	1899	152	F.	66	.50	1.20	.83
Augusta, Ga.	3	1890	85	M.	66	.50	1.20	.964
	3	1899	64	M.	66	.50	1.10	.874
	3	1900	65	M.	66	.65	1.20	.924
	3	1890	58	F.	66	.55	1.25	.87
	3	1899	111	F.	66	.55	1.20	.854
	3	1900	113	F.	66	.55	1.20	.874
	4	1890	10	M.	66	.65	1.50	.994
	4	1899	17	M.	66	.70	1.80	.954
	4	1900	17	M.	66	.75	1.80	1.00
	4	1890	87	F.	66	.56	1.85	.934
	4	1899	74	F.	66	.50	1.25	.814
	4	1900	74	F.	66	.53	1.35	.88
Burlington, N. C.	5	1890	7	M.	66	.664	.834	.71
	5	1893	15	M.	66	.934	1.034	.944
	5	1899	21	M.	66	.934	1.16	.974
	5	1890	15	F.	66	.664	.85	.724
	5	1893	22	F.	66	.75	1.00	.91
	5	1899	11	F.	66	.75	.984	.91
	6	1896	6	M.	66	1.00	1.00	1.00
	6	1896	39	F.	66	.75	1.25	1.004
Charlotte, N. C.	7	1890	21	M.	66	.66	1.25	.80
	7	1899	26	M.	66	.66	1.25	.84
	7	1890	19	F.	66	.55	1.00	.714
	7	1899	24	F.	66	.56	1.00	.74
Concord, N. C.	8	1890	81	M.	69	.75	1.45	.96
	8	1899	89	M.	69	.75	1.45	.96
	8	1900	91	M.	69	.76	1.45	.96
	8	1890	41	F.	69	.72	1.15	.834
	8	1899	48	F.	69	.72	1.15	.844
Fall River, Mass.	9	1893	220	(a)	58	.59	1.68	1.304
	9	1894	197	(a)	58	.534	1.464	1.104
	9	1895	189	(a)	58	.554	1.774	1.30
	9	1898	259	(a)	58	.424	1.544	1.14
	9	1899	237	(a)	58	.48	1.68	1.224
	9	1900	258	(a)	58	.584	1.814	1.37
Franklinsville, N. C.	10	1890	16	F.	69	.55	.70	.57
	10	1894	14	F.	69	.51	.51	.51
	10	1899	27	F.	69	.55	.874	.68
	10	1900	29	F.	69	.55	.874	.684
Greensboro, N. C.	11	1897	28	(b)	66	.75	1.164	.93
	11	1900	55	(b)	66	.75	1.174	.93
Greenville, S. C.	12	1890	34	M.	66	.80	1.75	1.004
	12	1899	44	M.	66	.80	1.75	1.07
	12	1900	42	M.	66	.80	2.00	1.07
	12	1890	18	F.	66	.80	1.00	.84
	12	1899	22	F.	66	.80	1.00	.86
Pelzer, S. C.	13	1890	394	(b)	66	.40	1.10	.78
	13	1891	446	(b)	66	.40	1.20	.78
	13	1892	494	(b)	66	.40	1.05	.75
	13	1893	478	(b)	66	.40	1.00	.73
	13	1894	489	(b)	66	.30	.85	.63
	13	1896	488	(b)	66	.35	.95	.65
	13	1896	868	(b)	66	.45	1.00	.81
	13	1897	749	(b)	66	.40	1.20	.88
	13	1898	694	(b)	66	.40	1.20	.84
	13	1899	689	(b)	66	.40	1.20	.87
Ramseur, N. C.	15	1890	9	M.	69	.454	.454	.454
	15	1898	6	M.	69	.48	.48	.48
	15	1899	3	M.	69	.55	.55	.55
	15	1890	49	F.	69	.34	.51	.434
	15	1898	44	F.	69	.36	.65	.484
	15	1899	61	F.	69	.38	.70	.56
	15	1900	64	F.	69	.38	.70	.56

a Both sexes.

b Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

FOUNDRY AND MACHINE-SHOP PRODUCTS.

Occupation and location.	Establish- ment num- ber.	First year and years of change.	Number of em- ploy- ees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Blacksmiths:								
Atlanta, Ga.	1	1890	2	M.	60	\$3.00	\$3.25	\$3.12½
	1	1899	2	M.	60	2.70	3.50	3.10
	1	1900	2	M.	60	3.00	3.50	3.25
Birmingham, Ala.	4	1890	1	M.	60	2.75	2.75	2.75
	4	1893	1	M.	60	2.50	2.50	2.50
	4	1896	2	M.	60	2.75	2.75	2.75
	4	1899	3	M.	60	2.00	3.00	2.66½
	4	1900	3	M.	60	2.25	3.00	2.75
Boston, Mass.	6	1891	11	M.	60	2.00	2.50	2.07
	6	1897	12	M.	54	2.50	3.50	2.62½
Buffalo, N. Y.	8	1893	6	M.	60	1.80	3.50	2.43½
	8	1894	5	M.	60	2.00	3.50	2.52
	8	1898	6	M.	60	2.00	3.50	2.50
	8	1899	6	M.	60	2.00	3.00	2.25
	8	1900	6	M.	60	2.20	3.00	2.41½
	10	1891	2	M.	60	2.00	2.25	2.12½
	10	1893	2	M.	60	2.25	2.25	2.25
	10	1894	3	M.	60	1.75	2.15	2.00
	10	1896	2	M.	54	1.57½	1.89	1.73½
	10	1897	3	M.	54	1.80	2.02½	1.90½
	10	1898	2	M.	54	1.89	2.02½	1.95½
	10	1900	3	M.	54	1.80	2.02½	1.90½
Cleveland, Ohio.	13	1890	2	M.	60	2.50	2.50	2.50
	13	1891	2	M.	60	2.25	2.50	2.37½
	13	1894	2	M.	60	2.00	2.00	2.00
	13	1896	2	M.	60	2.25	2.25	2.25
	13	1897	2	M.	60	2.37½	2.37½	2.37½
	13	1898	2	M.	60	2.50	2.50	2.50
	14	1890	11	M.	60	1.75	2.70	2.24½
	14	1891	11	M.	60	1.75	2.85	2.31½
	14	1892	9	M.	60	1.80	2.85	2.35
	14	1893	7	M.	60	2.00	3.00	2.51½
	14	1894	6	M.	60	1.60	2.10	1.90
	14	1895	3	M.	60	1.60	2.00	1.86½
	14	1896	2	M.	60	1.80	3.25	2.52½
	14	1897	3	M.	60	1.80	3.25	2.41½
	14	1899	5	M.	60	1.80	3.50	2.42
	14	1900	5	M.	60	2.00	3.50	2.55
Blacksmiths' helpers:								
Buffalo, N. Y.	8	1893	9	M.	60	1.50	1.70	1.52
	8	1894	8	M.	60	1.50	1.80	1.58½
	8	1895	6	M.	60	1.50	1.80	1.56½
	8	1899	4	M.	60	1.40	1.50	1.42½
	10	1891	2	M.	60	1.40	1.40	1.40
	10	1892	3	M.	60	1.40	1.50	1.46½
	10	1894	3	M.	60	1.30	1.40	1.36½
	10	1896	2	M.	54	1.28	1.28	1.28
	10	1897	3	M.	54	1.28	1.35	1.32
	10	1898	2	M.	54	1.35	1.35	1.35
Cleveland, Ohio.	13	1890	2	M.	60	1.62½	1.62½	1.62½
	13	1891	2	M.	60	1.50	1.50	1.50
	13	1896	2	M.	60	1.60	1.60	1.60
	13	1898	2	M.	60	1.75	1.75	1.75
	14	1890	17	M.	60	1.45	1.65	1.46
	14	1891	15	M.	60	1.45	1.50	1.46½
	14	1892	17	M.	60	1.40	1.50	1.45½
	14	1893	12	M.	60	1.45	1.50	1.46½
	14	1894	6	M.	60	1.15	1.35	1.18½
	14	1895	2	M.	60	1.15	1.15	1.15
	14	1896	6	M.	60	1.30	2.20	1.45½
	14	1897	4	M.	60	1.30	1.50	1.35
	14	1898	5	M.	60	1.40	1.50	1.45
	14	1899	5	M.	60	1.50	1.50	1.50
	14	1900	7	M.	60	1.65	1.65	1.65
Boiler makers:								
Augusta, Ga.	2	1890	3	M.	59	1.50	2.33½	1.94½
	2	1899	9	M.	59	1.60	2.50	2.14½
	2	1900	10	M.	59	1.60	2.75	2.23

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

FOUNDRY AND MACHINE-SHOP PRODUCTS—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Boiler makers—Concluded.								
Birmingham, Ala.	4	1890	4	M.	60	\$2.00	\$2.75	\$2.87
	4	1893	4	M.	60	2.00	2.50	2.25
	4	1896	4	M.	60	2.50	2.75	2.62
	4	1899	4	M.	60	2.75	3.00	2.87
Buffalo, N. Y.	7	1891	17	M.	60	1.90	3.00	2.22
	7	1892	47	M.	60	1.85	3.00	2.23
	7	1893	82	M.	60	1.75	2.50	2.16
	7	1894	40	M.	60	1.75	2.50	2.02
	7	1895	37	M.	60	1.75	2.70	2.04
	7	1896	44	M.	60	1.85	2.70	2.09
	7	1897	25	M.	54	1.80	2.43	2.02
	7	1898	16	M.	54	1.98	2.47	2.24
	7	1899	15	M.	54	1.80	2.47	2.18
	7	1900	19	M.	54	1.98	2.52	2.47
	10	1890	31	M.	60	2.25	3.00	2.47
	10	1891	34	M.	60	2.25	2.75	2.45
	10	1893	47	M.	60	2.25	3.00	2.46
	10	1896	27	M.	54	2.02	2.25	2.09
	10	1897	17	M.	54	2.25	2.47	2.31
	10	1898	28	M.	54	2.02	2.47	2.29
	10	1899	25	M.	54	2.02	2.70	2.30
	10	1900	19	M.	54	2.52	2.70	2.56
Cleveland, Ohio.	13	1890	14	M.	60	2.00	2.50	2.22
	13	1891	14	M.	60	1.75	2.50	2.14
	13	1892	12	M.	60	1.87	2.50	2.27
	13	1894	9	M.	60	1.75	2.50	2.19
	13	1895	12	M.	60	1.75	2.25	2.00
	13	1896	12	M.	60	1.75	2.37	2.18
	13	1897	11	M.	60	2.00	2.50	2.41
	13	1898	15	M.	60	1.87	2.50	2.32
	13	1899	11	M.	60	2.00	2.50	2.30
	13	1900	14	M.	60	2.00	2.50	2.34
Boiler makers' helpers:								
Buffalo, N. Y.	7	1891	83	M.	60	1.10	1.80	1.40
	7	1892	54	M.	60	1.25	1.85	1.41
	7	1893	39	M.	60	1.80	1.75	1.41
	7	1894	37	M.	60	1.80	1.60	1.41
	7	1895	31	M.	60	1.25	1.60	1.38
	7	1896	36	M.	60	1.80	1.75	1.43
	7	1897	20	M.	54	1.12	1.35	1.25
	7	1898	16	M.	54	1.17	1.53	1.26
	7	1900	19	M.	54	1.17	1.62	1.28
	10	1890	65	M.	60	1.50	2.00	1.63
	10	1895	30	M.	60	1.85	2.00	1.61
	10	1898	42	M.	54	1.35	1.80	1.52
Cleveland, Ohio.	13	1890	9	M.	60	1.62	1.87	1.75
	13	1891	8	M.	60	1.50	1.87	1.61
	13	1892	6	M.	60	1.62	1.87	1.66
	13	1893	6	M.	60	1.62	1.87	1.71
	13	1894	7	M.	60	1.50	1.62	1.55
	13	1895	6	M.	60	1.50	1.60	1.53
	13	1896	7	M.	60	1.50	1.62	1.55
	13	1897	9	M.	60	1.50	1.75	1.61
	13	1898	6	M.	60	1.50	1.65	1.57
	13	1899	6	M.	60	1.62	1.75	1.68
	13	1900	9	M.	60	1.65	1.75	1.73
Brass molders:								
New York, N. Y.	17	1891	9	M.	54	2.66	2.66	2.66
Brass molders' helpers:								
New York, N. Y.	17	1891	5	M.	54	1.50	1.66	1.58
Carpenters:								
Atlanta, Ga.	1	1890	26	M.	60	2.00	2.50	2.14
	1	1899	62	M.	60	1.50	2.75	1.94
	1	1900	86	M.	60	1.50	2.75	2.00
Augusta, Ga.	2	1890	3	M.	59	1.33	2.00	1.61
	2	1899	2	M.	59	1.75	1.80	1.77
	2	1900	3	M.	59	1.50	1.80	1.68

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

FOUNDRY AND MACHINE-SHOP PRODUCTS—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Carpenters—Concluded.								
Birmingham, Ala	5	1892	48	M.	60	\$1.50	\$2.25	\$2.00
	5	1893	29	M.	60	1.50	2.50	2.07
	5	1899	62	M.	60	1.50	2.50	1.99½
	5	1900	66	M.	60	1.50	2.75	2.16½
Charlotte, N. C	11	1890	15	M.	60	1.50	1.50	1.50
	11	1899	19	M.	60	1.75	2.00	1.80½
Core makers:								
Lynn, Mass	16	1891	6	M.	(a)	2.00	2.25	2.12½
	16	1900	12	M.	(a)	2.50	3.00	2.75
New York, N. Y	17	1891	4	M.	54	1.50	2.00	1.66½
Filers:								
New York, N. Y	17	1891	4	M.	54	1.66½	1.66½	1.66½
Laborers:								
Charlotte, N. C	11	1890	17	M.	60	.75	.75	.75
Machinists:								
Atlanta, Ga	1	1890	27	M.	60	1.75	3.00	2.48
	1	1899	31	M.	60	1.75	3.00	2.37½
	1	1900	19	M.	60	1.75	3.25	2.28
Augusta, Ga	2	1890	14	M.	59	1.50	2.33½	1.98
	2	1899	14	M.	59	1.50	2.50	2.07½
	2	1900	19	M.	59	1.75	2.50	2.27
Birmingham, Ala	3	1894	4	M.	60	2.65	2.65	2.65
	3	1895	4	M.	60	2.75	2.75	2.75
	3	1899	19	M.	60	2.75	3.00	2.87
	3	1900	22	M.	60	3.00	3.00	3.00
	4	1890	6	M.	60	2.00	2.75	2.50
	4	1893	7	M.	60	1.75	2.50	2.18
	4	1896	8	M.	60	2.00	2.75	2.47
	4	1899	9	M.	60	2.00	3.00	2.75
	5	1892	10	M.	60	2.00	3.00	2.40
	5	1899	24	M.	60	2.00	3.00	2.46
	5	1900	26	M.	60	2.00	3.25	2.47½
Buffalo, N. Y	8	1893	47	M.	60	2.00	3.00	2.34½
	8	1894	42	M.	60	1.80	2.90	2.30
	8	1895	44	M.	60	1.80	3.00	2.28
	8	1896	46	M.	60	1.80	3.00	2.27½
	8	1899	42	M.	60	1.70	3.00	2.13
	8	1900	59	M.	60	1.80	3.00	2.23½
Charlotte, N. C	11	1890	28	M.	60	1.75	2.25	2.03½
	11	1899	40	M.	60	2.25	2.75	2.53
Chicago, Ill	12	1891	24	M.	60	2.25	3.35	2.83½
	12	1892	33	M.	60	2.25	3.35	2.86
	12	1893	30	M.	60	2.50	3.35	2.92½
	12	1894	29	M.	60	2.25	3.35	2.86½
	12	1895	25	M.	60	2.25	3.00	2.56
	12	1896	25	M.	60	2.50	3.25	2.90
	12	1898	13	M.	60	2.25	3.00	2.82
	12	1899	17	M.	60	2.86	3.30	3.13
	12	1900	12	M.	60	2.75	3.30	3.05½
Cleveland, Ohio	14	1890	47	M.	60	1.75	3.00	2.42½
	14	1891	47	M.	60	2.00	3.00	2.51
	14	1892	48	M.	60	1.75	3.00	2.43½
	14	1893	44	M.	60	1.75	3.00	2.48
	14	1894	16	M.	60	1.40	2.85	1.97
	14	1895	15	M.	60	2.00	2.85	2.09½
	14	1896	24	M.	60	1.85	2.80	2.29½
	14	1897	19	M.	60	1.50	2.60	2.31½
	14	1898	20	M.	60	1.50	2.60	2.33½
	14	1899	31	M.	60	1.65	2.75	2.28½
	14	1900	54	M.	60	1.75	3.00	2.45½
Greensboro, N. C	15	1897	2	M.	60	1.50	2.25	1.87½
	15	1899	3	M.	60	1.25	2.25	1.83½
	15	1900	7	M.	60	1.25	2.25	1.68
Philadelphia, Pa	18	1891	10	M.	54	1.66½	2.66½	2.16½
	18	1900	10	M.	48	2.00	3.00	2.50
Machinists' helpers:								
Buffalo, N. Y	8	1893	38	M.	60	1.30	1.90	1.59½
	8	1894	27	M.	60	1.30	1.70	1.52½

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

FOUNDRY AND MACHINE-SHOP PRODUCTS—Continued.

Occupation and location.	Establishment number.	First year and years of change	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Machinists' helpers—Concl'd.								
Buffalo, N. Y.—Concluded	8	1896	26	M.	60	\$1.20	\$1.70	\$1.51
	8	1896	25	M.	60	1.00	1.60	1.38
	8	1897	37	M.	60	1.00	1.70	1.43
	8	1898	36	M.	60	1.00	1.70	1.44
	8	1899	26	M.	60	1.00	1.60	1.40
	8	1900	28	M.	60	1.00	1.70	1.36
Chicago, Ill	12	1891	6	M.	60	1.70	1.85	1.78
	12	1892	9	M.	60	1.75	2.00	1.89
	12	1893	13	M.	60	1.75	2.25	1.91
	12	1894	8	M.	60	1.85	2.00	1.92
	12	1895	5	M.	60	1.67	2.02	1.84
	12	1896	5	M.	60	1.70	2.10	1.86
	12	1897	5	M.	60	1.70	2.10	1.87
	12	1898	6	M.	60	1.65	2.00	1.85
	12	1899	5	M.	60	1.65	2.50	1.89
	12	1900	4	M.	60	1.65	2.20	1.96
Cleveland, Ohio	14	1890	90	M.	60	1.30	2.00	1.42
	14	1891	39	M.	60	1.20	1.85	1.45
	14	1892	40	M.	60	1.30	1.50	1.40
	14	1893	15	M.	60	1.40	1.50	1.41
	14	1894	12	M.	60	1.15	1.15	1.15
	14	1895	7	M.	60	1.15	1.50	1.24
	14	1896	21	M.	60	1.20	1.75	1.52
	14	1897	14	M.	60	1.25	1.75	1.39
	14	1899	30	M.	60	1.20	1.60	1.29
	14	1900	40	M.	60	1.25	1.75	1.44
Millwrights:								
Buffalo, N. Y	8	1893	16	M.	60	2.00	3.00	2.39
	8	1894	16	M.	60	2.00	3.00	2.43
	8	1895	10	M.	60	2.20	3.00	2.57
	8	1896	11	M.	60	2.10	3.00	2.53
	8	1897	12	M.	60	2.10	3.00	2.51
	8	1898	14	M.	60	2.00	3.00	2.39
	8	1899	11	M.	60	2.00	2.80	2.27
	8	1900	17	M.	60	2.00	3.00	2.30
Millwrights' helpers:								
Buffalo, N. Y	8	1893	8	M.	60	1.40	1.80	1.56
	8	1895	4	M.	60	1.40	1.80	1.55
	8	1896	5	M.	60	1.40	1.50	1.46
	8	1897	6	M.	60	1.40	1.80	1.50
	8	1898	10	M.	60	1.40	1.80	1.57
	8	1899	5	M.	60	1.50	1.60	1.54
	8	1900	5	M.	60	1.50	1.90	1.66
Molders:								
Atlanta, Ga	1	1890	10	M.	60	1.75	3.00	2.50
	1	1899	13	M.	60	1.50	3.00	1.98
	1	1900	12	M.	60	1.50	3.00	2.12
Augusta, Ga	2	1890	9	M.	59	1.50	2.33	2.13
	2	1899	10	M.	59	1.55	2.50	1.93
	2	1900	14	M.	59	1.55	2.75	1.93
Birmingham, Ala	3	1894	4	M.	60	2.75	2.75	2.75
	3	1899	5	M.	60	2.75	3.00	2.85
	3	1900	8	M.	60	3.00	3.00	3.00
	4	1890	9	M.	60	2.00	2.75	2.45
	4	1892	8	M.	60	2.50	2.75	2.65
	4	1893	7	M.	60	2.00	2.50	2.28
	4	1896	9	M.	60	2.00	2.75	2.50
	4	1899	8	M.	60	2.75	3.00	2.93
Buffalo, N. Y	8	1893	47	M.	60	2.00	2.70	2.30
	8	1895	48	M.	60	1.80	2.70	2.26
	8	1899	39	M.	60	1.90	2.70	2.23
	8	1900	42	M.	60	2.00	3.50	2.51
	9	1893	(a)	M.	51	1.50	4.50	2.75
	9	1894	(a)	M.	51	1.35	4.00	2.40
	9	1895	(a)	M.	51	1.35	3.00	2.00
	9	1899	(a)	M.	51	1.50	3.00	2.20

a This establishment reported the lowest, highest, and average rates of wages, but declined to report the number of employees.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

FOUNDRY AND MACHINE-SHOP PRODUCTS—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Molders—Concluded.								
Charlotte, N. C.	11	1890	15	M.	60	\$2.25	\$2.25	\$2.25
	11	1899	15	M.	60	2.50	2.50	2.50
Chicago, Ill.	12	1891	30	M.	60	2.25	3.50	2.74
	12	1892	30	M.	60	2.25	3.50	2.74
	12	1893	23	M.	60	2.40	3.50	2.76
	12	1894	15	M.	60	2.25	3.50	2.78
	12	1895	16	M.	60	2.02	3.15	2.54
	12	1896	16	M.	60	2.25	3.50	2.78
	12	1897	15	M.	60	2.40	3.50	2.82
	12	1898	17	M.	60	2.40	3.50	2.78
	12	1899	12	M.	60	2.75	3.85	3.20
Cleveland, Ohio.	14	1890	3	M.	60	2.35	2.75	2.48
	14	1891	3	M.	60	1.65	2.60	2.25
	14	1892	3	M.	60	1.65	2.65	2.26
	14	1894	2	M.	60	1.30	2.10	1.70
	14	1895	10	M.	60	1.75	2.25	2.20
	14	1896	15	M.	60	2.50	2.60	2.52
	14	1898	34	M.	60	2.25	2.75	2.51
	14	1899	45	M.	60	2.50	2.75	2.53
	14	1900	50	M.	60	2.75	3.00	2.78
Lynn, Mass.	16	1891	30	M.	59	2.25	2.60	2.33
	16	1900	35	M.	59	2.75	3.60	2.83
Molders' helpers:								
Buffalo, N. Y.	8	1893	40	M.	60	1.40	1.80	1.54
	8	1894	44	M.	60	1.30	1.80	1.52
	8	1895	40	M.	60	1.40	1.70	1.50
	8	1897	38	M.	60	1.20	1.70	1.51
	8	1898	33	M.	60	1.30	1.70	1.50
	8	1899	26	M.	60	1.20	1.70	1.41
	8	1900	26	M.	60	1.50	1.70	1.51
Chicago, Ill.	12	1891	22	M.	60	1.60	2.25	1.88
	12	1892	12	M.	60	1.60	1.90	1.72
	12	1893	14	M.	60	1.60	2.10	1.78
	12	1894	16	M.	60	1.60	2.25	1.83
	12	1895	10	M.	60	1.45	1.90	1.60
	12	1896	17	M.	60	1.60	2.10	1.78
	12	1897	19	M.	60	1.60	2.00	1.79
	12	1898	8	M.	60	1.60	2.00	1.80
	12	1899	13	M.	60	1.65	2.50	1.98
	12	1900	14	M.	60	1.76	2.50	2.03
Cleveland, Ohio.	14	1890	7	M.	60	1.30	1.80	1.43
	14	1891	4	M.	60	1.40	1.50	1.43
	14	1892	9	M.	60	1.30	1.50	1.36
	14	1893	4	M.	60	1.30	1.50	1.37
	14	1894	2	M.	60	1.15	1.20	1.17
	14	1895	8	M.	60	1.10	1.75	1.30
	14	1896	9	M.	60	1.00	1.20	1.18
	14	1897	16	M.	60	1.20	1.30	1.22
	14	1898	49	M.	60	1.20	1.40	1.22
	14	1900	35	M.	60	1.30	1.50	1.33
Lynn, Mass.	16	1891	4	M.	59	1.50	1.50	1.50
Painters:								
Birmingham, Ala.	5	1892	6	M.	60	2.00	2.00	2.00
	5	1896	6	M.	60	1.25	2.25	1.91
	5	1899	12	M.	60	1.50	2.50	1.79
	5	1900	14	M.	60	1.50	2.75	1.88
Pattern makers:								
Atlanta, Ga.	1	1890	2	M.	60	2.25	3.00	2.62
	1	1900	2	M.	60	2.50	3.00	2.75
Augusta, Ga.	2	1890	3	M.	59	2.00	2.33	2.19
	2	1899	3	M.	59	2.00	2.75	2.25
Birmingham, Ala.	3	1894	2	M.	60	2.75	2.75	2.75
	3	1899	4	M.	60	2.75	3.00	2.87
	3	1900	5	M.	60	3.00	3.00	3.00
	4	1890	2	M.	60	2.50	2.75	2.62
	4	1892	2	M.	60	2.00	2.75	2.37
	4	1893	2	M.	60	2.00	2.50	2.25
	4	1896	2	M.	60	2.00	2.75	2.37
	4	1899	3	M.	60	2.25	3.00	2.75

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

FOUNDRY AND MACHINE-SHOP PRODUCTS—Concluded.

Occupation and location.	Estab- lish- ment num- ber.	First year and years of change.	Num- ber of em- ploy- ees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Pattern makers—Concluded.								
Buffalo, N. Y.	8	1891	4	M.	60	\$2.50	\$2.50	\$2.50
	8	1894	8	M.	60	2.75	2.75	2.75
	8	1898	7	M.	60	2.75	3.00	2.82
	8	1899	6	M.	60	3.00	3.25	3.12½
	8	1900	5	M.	60	3.25	3.25	3.25
	9	1898	(a)	M.	60	1.50	3.00	(a)
	9	1894	(a)	M.	60	1.85	2.70	(a)
	9	1899	(a)	M.	60	1.75	2.50	(a)
Chicago, Ill.	12	1891	27	M.	60	2.25	3.30	2.97
	12	1892	13	M.	60	2.50	3.30	3.04
	12	1898	9	M.	60	1.90	3.00	2.56
	12	1894	10	M.	60	2.75	3.25	3.08½
	12	1896	13	M.	60	1.90	2.92½	2.55½
	12	1896	13	M.	60	2.20	3.00	2.79
	12	1897	7	M.	60	2.75	3.15	2.96½
	12	1899	12	M.	60	2.47½	3.30	3.08
Screw-bolt makers:								
Worcester, Mass.	20	1898	24	M.	59	1.00	2.75	1.49
	20	1899	22	M.	59	1.00	2.75	1.58
	20	1900	41	M.	59	1.00	3.50	1.58½
Steam fitters:								
Philadelphia, Pa.	19	1891	40	M.	54	2.50	3.00	2.75
	19	1900	40	M.	48	3.00	3.00	3.00
Stove mounters:								
Buffalo, N. Y.	9	1898	(b)	M.	54	2.25	2.75	2.57½
	9	1894	(b)	M.	54	2.00	2.50	2.15
	9	1899	(b)	M.	54	2.25	2.75	2.50

FURNITURE.

Cabinetmakers:								
Atlanta, Ga.	1	1892	11	M.	60	\$1.25	\$2.00	\$1.52½
	1	1899	34	M.	60	1.25	2.25	1.57½
Greensboro, N. C.	2	1896	3	M.	60	1.00	1.00	1.00
	2	1899	5	M.	60	1.00	1.25	1.10
Engineers, stationary:								
Greensboro, N. C.	2	1896	1	M.	60	1.00	1.00	1.00
Finishers:								
Atlanta, Ga.	1	1892	10	M.	60	.90	1.90	1.22½
	1	1899	30	M.	60	.90	1.90	1.21½
	1	1900	30	M.	60	1.00	2.00	1.31½
Greensboro, N. C.	2	1896	3	M.	60	.80	1.25	.96
	2	1899	5	M.	60	.95	1.50	.98

HANDKERCHIEFS.

Cutters:								
Pasaic, N. J.	1	1896	68	F.	55	\$0.58½	\$1.16½	\$0.72
Finishers:								
Pasaic, N. J.	1	1896	19	M.	55	.83½	3.00	1.06½
	1	1898	90	F.	55	.75	1.83½	.91½
	1	1899	92	F.	55	.75	1.83½	.92½
Hemstitchers:								
Pasaic, N. J.	1	1896	300	F.	55	.75	1.16½	.84½
Ironers:								
Pasaic, N. J.	1	1896	2	M.	55	1.50	2.50	2.00
	1	1898	70	F.	55	.58½	.91½	.84
	1	1899	71	F.	55	.58½	.91½	.83½
	1	1900	73	F.	55	.58½	.91½	.84

a Not reported.

b This establishment reported the highest, lowest, and average rates of wages, but declined to report the number of employees.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

HATS, FELT.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Finishers:								
Philadelphia, Pa.	1	1892	124	M.	54	\$1.16 $\frac{1}{2}$	\$4.33 $\frac{1}{2}$	\$2.25
	1	1898	133	M.	54	1.16 $\frac{1}{2}$	4.83 $\frac{1}{2}$	2.24 $\frac{1}{2}$
	1	1899	144	M.	54	1.33 $\frac{1}{2}$	4.83 $\frac{1}{2}$	2.22 $\frac{1}{2}$
	1	1900	(a)	(a)	(a)	(a)	(a)	(a)
Sizers:								
Philadelphia, Pa.	1	1892	123	M.	54	.58 $\frac{1}{2}$	3.37 $\frac{1}{2}$	1.71
	1	1893	153	M.	54	.86	2.86	1.77
	1	1894	103	M.	54	1.06	2.76 $\frac{1}{2}$	1.36
	1	1896	93	M.	54	.93	2.58	1.40 $\frac{1}{2}$
	1	1896	120	M.	54	.82	2.58 $\frac{1}{2}$	1.55
	1	1897	108	M.	54	.82	2.65	1.70 $\frac{1}{2}$
	1	1898	162	M.	54	.63	2.76	1.67 $\frac{1}{2}$
	1	1899	175	M.	54	.98	3.06	1.84
	1	1900	(a)	(a)	(a)	(a)	(a)	(a)
Trimmers:								
Philadelphia, Pa.	1	1892	113	F.	54	.46	2.21 $\frac{1}{2}$	1.14 $\frac{1}{2}$
	1	1893	141	F.	54	.50	2.06	1.13
	1	1894	148	F.	54	.39	2.04	1.18 $\frac{1}{2}$
	1	1896	193	F.	54	.35	1.59 $\frac{1}{2}$	.87 $\frac{1}{2}$
	1	1898	154	F.	54	.41	2.26 $\frac{1}{2}$	1.11 $\frac{1}{2}$
	1	1897	146	F.	54	.37 $\frac{1}{2}$	2.06 $\frac{1}{2}$	1.19 $\frac{1}{2}$
	1	1898	145	F.	54	.37 $\frac{1}{2}$	1.93 $\frac{1}{2}$	1.16
	1	1899	175	F.	54	.44 $\frac{1}{2}$	2.02 $\frac{1}{2}$	1.11
	1	1900	(a)	(a)	(a)	(a)	(a)	(a)

HOSIERY AND KNIT GOODS.

Knitters:								
Raleigh, N. C.	1	1897	5	M.	66	\$0.49	\$1.00	\$0.72 $\frac{1}{2}$
	1	1897	4	F.	66	.30	.48	.28 $\frac{1}{2}$
Loopers:								
Raleigh, N. C.	1	1897	11	F.	66	.25	.83 $\frac{1}{2}$	.50
Toppers:								
Raleigh, N. C.	1	1897	13	F.	66	.26	.46	.32 $\frac{1}{2}$

LACE CURTAINS.

Weavers:								
Philadelphia, Pa.	1	1892	17	M.	60	\$0.80	\$7.92 $\frac{1}{2}$	\$4.17
	1	1893	16	M.	60	.24 $\frac{1}{2}$	2.93	1.41 $\frac{1}{2}$
	1	1894	25	M.	60	1.64	5.89	3.57
	1	1895	36	M.	60	.57	3.08 $\frac{1}{2}$	1.33
	1	1896	42	M.	60	.60 $\frac{1}{2}$	2.81 $\frac{1}{2}$	1.81
	1	1897	38	M.	60	.88 $\frac{1}{2}$	4.82 $\frac{1}{2}$	2.98 $\frac{1}{2}$
	1	1898	40	M.	60	.70	7.39	4.01 $\frac{1}{2}$
	1	1899	45	M.	60	.75	7.89 $\frac{1}{2}$	4.02
	1	1900	53	M.	60	1.50	8.85	4.49
Winders:								
Philadelphia, Pa.	1	1891	12	F.	60	.17 $\frac{1}{2}$	.69 $\frac{1}{2}$	.47 $\frac{1}{2}$
	1	1892	18	F.	60	.17 $\frac{1}{2}$	1.58 $\frac{1}{2}$	.65 $\frac{1}{2}$
	1	1893	14	F.	60	.33 $\frac{1}{2}$	.54	.43 $\frac{1}{2}$
	1	1894	21	F.	60	.21	.94	.68
	1	1895	26	F.	60	.76	1.37 $\frac{1}{2}$	1.00 $\frac{1}{2}$
	1	1896	26	F.	60	.17 $\frac{1}{2}$	.41	.30
	1	1897	20	F.	60	.61 $\frac{1}{2}$	1.06 $\frac{1}{2}$	.67 $\frac{1}{2}$
	1	1898	25	F.	60	.60	1.36 $\frac{1}{2}$	1.00
	1	1899	35	F.	60	.52 $\frac{1}{2}$	1.35	.81
	1	1900	37	F.	60	.40	1.48	1.01

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

LASTS.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Last makers:								
Worcester, Mass.....	1	1892	13	M.	59	\$1.50	\$2.75	\$2.29½
	1	1899	16	M.	59	1.25	3.00	2.35
Model makers:								
Worcester, Mass.....	1	1892	3	M.	59	2.50	4.16½	3.44½
	1	1899	2	M.	59	4.16½	4.16½	4.16½
Pattern makers:								
Worcester, Mass.....	1	1892	1	M.	59	2.25	2.25	2.25

LAUNDRY WORK.

Ironers, hand:								
Atlanta, Ga.....	1	1895	3	F.	60	\$0.50	\$0.66½	\$0.58½
	1	1899	4	F.	60	.58½	.62½	.59½
Ironers, machine:								
Atlanta, Ga.....	1	1895	8	F.	60	.66½	1.08½	.76

LEATHER.

Beamsters:								
Lynn, Mass.....	1	1891	10	M.	59	\$1.50	\$1.50	\$1.50
	1	1893	6	M.	59	1.16½	1.50	1.33½
	1	1899	8	M.	59	1.33½	1.83½	1.52
Colorers:								
Lynn, Mass.....	1	1891	5	M.	59	1.50	1.50	1.50
	1	1893	3	M.	59	1.16½	1.16½	1.16½
	1	1899	3	M.	59	1.00	1.66½	1.33½
Peabody, Mass.....	2	1895	1	M.	59	2.50	2.50	2.50
Machine hands:								
Peabody, Mass.....	2	1895	4	M.	59	1.33½	1.66½	1.50
	2	1900	5	M.	59	1.33½	2.00	1.63½
Putters-out:								
Peabody, Mass.....	2	1895	4	M.	59	1.75	1.75	1.75
Seasoners:								
Lynn, Mass.....	1	1891	10	M.	59	1.33½	1.33½	1.33½
	1	1893	4	M.	59	1.00	1.00	1.00
	1	1899	8	M.	59	1.16½	1.16½	1.16½
Peabody, Mass.....	2	1895	2	M.	59	1.66½	2.00	1.83½
	2	1898	3	M.	59	1.50	2.00	1.72
Shavers:								
Peabody, Mass.....	2	1895	1	M.	59	3.56½	3.56½	3.56½
	2	1897	1	M.	59	3.46	3.46	3.46
	2	1898	1	M.	59	3.56½	3.56½	3.56½
	2	1899	1	M.	59	3.34½	3.34½	3.34½
	2	1900	1	M.	59	3.48½	3.48½	3.48½
Stakers:								
Lynn, Mass.....	1	1891	7	M.	59	1.33½	1.50	1.43
	1	1893	3	M.	59	1.50	1.50	1.50
	1	1899	6	M.	59	1.66½	1.66½	1.66½
Tanners:								
Peabody, Mass.....	2	1895	6	M.	59	1.66½	1.66½	1.66½

MATTRESSES AND SPRING BEDS.

Mattress makers:								
New York, N. Y.....	1	1891	4	M.	60	\$2.00	\$2.00	\$2.00
Spring makers:								
New York, N. Y.....	1	1891	2	M.	60	2.50	2.50	2.50

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

MINING, COAL.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Blacksmiths:								
Birmingham, Ala.....	1	1891	5	M.	60	\$2.25	\$2.25	\$2.25
	1	1894	5	M.	60	2.15	2.15	2.15
	1	1896	5	M.	60	2.05	2.05	2.05
	1	1897	5	M.	60	2.00	2.00	2.00
	1	1899	7	M.	60	2.05	2.81½	2.49
	1	1900	7	M.	60	2.81½	2.81½	2.81½
Blacksmiths' helpers:								
Birmingham, Ala.....	1	1891	5	M.	60	1.25	1.25	1.25
	1	1894	5	M.	60	1.15	1.15	1.15
	1	1899	7	M.	60	1.27½	1.58	1.45
	1	1900	7	M.	60	1.58	1.58	1.58
Car loaders:								
Birmingham, Ala.....	1	1891	10	M.	(a)	1.15	1.15	1.15
	1	1894	7	M.	(a)	1.05	1.05	1.05
	1	1899	8	M.	(a)	1.15	1.37½	1.26½
	1	1900	8	M.	(a)	1.37½	1.37½	1.37½
Carpenters:								
Birmingham, Ala.....	1	1891	5	M.	60	2.00	2.00	2.00
	1	1894	5	M.	60	1.90	1.90	1.90
	1	1895	5	M.	60	1.50	1.75	1.65
	1	1896	5	M.	60	1.50	1.90	1.74
	1	1897	4	M.	60	1.63	1.80	1.75½
	1	1898	7	M.	60	1.50	1.75	1.64½
	1	1899	7	M.	60	1.63	2.47½	2.11½
	1	1900	7	M.	60	2.47½	2.47½	2.47½
Drivers:								
Birmingham, Ala.....	1	1891	100	M.	(a)	1.25	1.25	1.25
	1	1899	147	M.	(a)	1.27	1.58	1.43
	1	1900	154	M.	(a)	1.58	1.58	1.58
Dumpers:								
Birmingham, Ala.....	1	1891	10	M.	(a)	1.15	1.15	1.15
	1	1894	8	M.	(a)	1.10	1.10	1.10
	1	1899	14	M.	(a)	1.20	1.43	1.31½
	1	1900	14	M.	(a)	1.43	1.43	1.43
Miners:								
Birmingham, Ala.....	1	1891	1,067	M.	(a)	b. 45	b. 45	b. 45
	1	1896	959	M.	(a)	b. 42½	b. 42½	b. 42½
	1	1897	1,411	M.	(a)	b. 37½	b. 40	(a)
	1	1899	1,485	M.	(a)	b. 40	b. 55	(a)
	1	1900	1,485	M.	(a)	b. 55	b. 55	b. 55
	c1	1893	433	M.	(a)	b. 40	b. 40	b. 40
	c1	1894	433	M.	(a)	b. 32½	b. 40	(a)
	c1	1897	443	M.	(a)	b. 28	b. 35	(a)
	c1	1898	430	M.	(a)	b. 28	b. 30½	(a)
	c1	1899	518	M.	(a)	b. 30½	b. 47½	(a)
	c1	1900	522	M.	(a)	b. 47½	b. 47½	b. 47½
	2	1896	553	M.	(a)	b. 42½	b. 42½	b. 42½
	2	1897	643	M.	(a)	b. 37½	b. 40	(a)
	2	1899	986	M.	(a)	b. 40	b. 55	(a)
	2	1900	1,096	M.	(a)	b. 55	b. 55	b. 55
Pin pullers:								
Birmingham, Ala.....	1	1891	5	M.	(a)	1.15	1.15	1.15
	1	1899	8	M.	(a)	1.27½	1.48½	1.38
	1	1900	7	M.	(a)	1.48½	1.48½	1.48½
Scalers:								
Birmingham, Ala.....	1	1891	10	M.	(a)	1.10	1.10	1.10
	1	1894	6	M.	(a)	1.00	1.00	1.00
	1	1899	14	M.	(a)	1.10	1.32	1.21
	1	1900	14	M.	(a)	1.32	1.32	1.32
Tip middlemen:								
Birmingham, Ala.....	1	1891	10	M.	(a)	1.00	1.00	1.00
	1	1899	22	M.	(a)	1.10	1.32	1.21
	1	1900	18	M.	(a)	1.32	1.32	1.32

a Not reported.

b Per ton.

c A second mine of establishment No. 1.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

MINING, COAL—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Track men:								
Birmingham, Ala	1	1891	40	M.	(a)	\$1.25	\$1.25	\$1.25
	1	1894	32	M.	(a)	1.15	1.15	1.15
	1	1895	40	M.	(a)	1.10	1.10	1.10
	1	1896	50	M.	(a)	1.12	1.12	1.12
	1	1899	63	M.	(a)	1.13	1.54	1.37½
	1	1900	65	M.	(a)	1.54	1.54	1.54

PIG IRON.

Blacksmiths:								
Birmingham, Ala	2	1890	2	M.	60	\$2.50	\$2.75	\$2.62½
	2	1899	4	M.	60	2.65	3.25	2.81½
Blacksmiths' helpers:								
Birmingham, Ala	2	1890	3	M.	60	1.25	1.25	1.25
	2	1899	5	M.	60	1.20	1.20	1.20
Brakemen, railroad:								
Birmingham, Ala	1	1893	4	M.	84	1.50	1.50	1.50
	1	1899	3	M.	84	1.45	1.45	1.45
	1	1900	2	M.	84	1.50	1.50	1.50
Breakers and pilers:								
Birmingham, Ala	1	1893	4	M.	84	1.00	1.00	1.00
	1	1896	22	M.	84	1.00	1.35	1.14½
	1	1899	18	M.	84	1.05	1.40	1.23
	1	1900	12	M.	84	1.10	1.75	1.23
	2	1890	42	M.	84	1.20	2.00	1.29½
	2	1896	21	M.	84	.90	1.50	1.05
	2	1899	22	M.	84	1.20	1.75	1.63½
Bricklayers:								
Birmingham, Ala	2	1890	3	M.	60	4.50	4.50	4.50
	2	1899	6	M.	60	4.05	4.40	4.11
	2	1900	6	M.	54	4.05	4.40	4.11
Cagers:								
Birmingham, Ala	2	1890	8	M.	84	1.85	1.85	1.85
	2	1896	6	M.	84	1.00	1.00	1.00
	2	1899	8	M.	84	1.20	1.20	1.20
Carpenters:								
Birmingham, Ala	2	1890	6	M.	60	2.00	2.50	2.25
	2	1899	11	M.	60	2.00	3.25	2.31
Engineers, locomotive:								
Birmingham, Ala	1	1893	4	M.	84	2.50	3.20	2.80
	1	1896	3	M.	84	2.15	2.25	2.21½
	1	1899	3	M.	84	2.50	3.00	2.83½
	1	1900	2	M.	84	2.55	3.05	2.80
Fall and wallow men:								
Birmingham, Ala	1	1893	4	M.	84	1.85	1.35	1.35
	1	1899	4	M.	84	1.40	1.40	1.40
	1	1900	4	M.	84	1.45	1.45	1.45
Fillers, coke:								
Birmingham, Ala	1	1893	16	M.	84	1.10	1.10	1.10
	1	1899	16	M.	84	1.20	1.20	1.20
	1	1900	20	M.	84	1.25	1.25	1.25
	2	1890	43	M.	84	1.33½	1.33½	1.33½
	2	1896	28	M.	84	1.00	1.00	1.00
	2	1899	43	M.	84	1.20	1.20	1.20
Fillers, lime:								
Birmingham, Ala	2	1890	16	M.	84	1.25	1.25	1.25
	2	1899	56	M.	84	1.20	1.20	1.20
Fillers, ore:								
Birmingham, Ala	1	1893	24	M.	84	1.10	1.10	1.10
	1	1899	24	M.	84	1.15	1.15	1.15
	1	1900	24	M.	84	1.25	1.25	1.25
	2	1890	43	M.	84	1.35	1.35	1.35
	2	1896	26	M.	84	1.00	1.00	1.00
	2	1899	56	M.	84	1.20	1.20	1.20

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

FIG IRON—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Fillers, top:								
Birmingham, Ala	1	1893	4	M.	84	\$1.50	\$1.50	\$1.50
	1	1899	4	M.	84	1.65	1.65	1.65
	1	1900	4	M.	84	1.70	1.70	1.70
	2	1890	8	M.	84	1.75	1.75	1.75
	2	1896	4	M.	84	1.45	1.45	1.45
	2	1899	8	M.	84	1.75	1.75	1.75
Fillers' helpers, top:								
Birmingham, Ala	1	1893	4	M.	84	1.25	1.25	1.25
	1	1896	4	M.	84	1.35	1.35	1.35
	1	1900	4	M.	84	1.40	1.40	1.40
	2	1890	8	M.	84	1.50	1.50	1.50
	2	1896	8	M.	84	1.25	1.25	1.25
	2	1899	8	M.	84	1.50	1.50	1.50
Firemen, locomotive:								
Birmingham, Ala	1	1893	4	M.	84	1.50	1.50	1.50
	1	1896	3	M.	84	1.40	1.40	1.40
	1	1899	3	M.	84	1.45	1.45	1.45
	1	1900	2	M.	84	1.50	1.50	1.50
Iron carriers:								
Birmingham, Ala	1	1893	10	M.	84	1.75	1.75	1.75
	1	1896	8	M.	84	1.60	1.60	1.60
	1	1899	8	M.	84	2.00	2.00	2.00
	2	1890	32	M.	84	2.00	2.00	2.00
	2	1896	10	M.	84	1.50	1.80	1.62
	2	1899	12	M.	84	2.00	2.00	2.00
Keepers:								
Birmingham, Ala	1	1893	4	M.	84	1.75	1.75	1.75
	1	1896	4	M.	84	1.70	1.70	1.70
	1	1899	4	M.	84	1.75	1.75	1.75
	1	1900	4	M.	84	1.80	1.80	1.80
	2	1890	8	M.	84	2.00	2.00	2.00
	2	1896	4	M.	84	1.50	1.60	1.55
	2	1899	8	M.	84	1.85	1.85	1.85
Keepers' helpers:								
Birmingham, Ala	1	1893	12	M.	84	1.35	1.35	1.35
	1	1899	12	M.	84	1.40	1.40	1.40
	1	1900	12	M.	84	1.45	1.45	1.45
	2	1890	82	M.	84	1.55	1.55	1.55
	2	1896	14	M.	84	1.00	1.25	1.15
	2	1899	24	M.	84	1.25	1.50	1.36
Machinists:								
Birmingham, Ala	2	1890	4	M.	60	2.50	2.50	2.50
	2	1899	7	M.	60	2.50	2.75	2.60
Scale men:								
Birmingham, Ala	1	1893	5	M.	84	1.20	1.30	1.32
	1	1896	5	M.	84	1.25	1.30	1.29
	1	1899	5	M.	84	1.00	1.20	1.16
	1	1900	4	M.	84	1.25	1.25	1.25
	2	1890	8	M.	84	2.00	2.00	2.00
	2	1896	4	M.	84	1.50	1.75	1.62
	2	1899	8	M.	84	2.00	2.00	2.00
Scrap men:								
Birmingham, Ala	1	1893	6	M.	84	1.25	1.25	1.25
	1	1896	2	M.	84	1.00	1.00	1.00
	1	1899	2	M.	84	1.25	1.25	1.25
	1	1900	2	M.	84	1.30	1.30	1.30
	2	1890	8	M.	84	1.25	1.25	1.25
	2	1896	5	M.	84	1.15	1.30	1.22
	2	1899	8	M.	84	1.87	1.87	1.87
	2	1900	11	M.	84	1.25	1.37	1.34
Stock dumpers:								
Birmingham, Ala	1	1893	2	M.	84	1.15	1.25	1.20
	1	1896	3	M.	84	1.10	1.25	1.15
	2	1890	6	M.	84	1.10	1.50	1.19
	2	1896	4	M.	84	1.00	1.00	1.00
	2	1899	12	M.	84	1.10	1.50	1.18
Stove men:								
Birmingham, Ala	1	1893	4	M.	84	1.60	1.60	1.60
	1	1896	2	M.	84	2.00	2.00	2.00

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average earnings have been computed wherever possible.]

FIG IRON—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day		
						Lowest.	Highest.	Average.
Stove men—Concluded.								
Birmingham, Ala.—Concl'd.	1	1899	4	M.	84	\$1.60	\$1.60	\$1.60
	1	1900	4	M.	84	1.65	1.65	1.65
	2	1890	8	M.	84	1.75	1.75	1.75
	2	1897	4	M.	84	1.35	1.50	1.50
	2	1899	8	M.	84	1.75	1.75	1.75

PLANING-MILL PRODUCTS.

Engineers, stationary:								
New York, N. Y.	2	1890	1	M.	60	\$3.00	\$3.00	\$3.00
	2	1897	1	M.	58	3.00	3.00	3.00
Mill men:								
Oakland, Cal.	3	1888	15	M.	54	2.00	3.00	3.00
	3	1894	30	M.	54	2.00	3.25	3.25
	3	1895	15	M.	54	2.00	3.00	3.00
Planers and sawyers:								
Buffalo, N. Y.	1	1891	15	M.	60	2.00	2.50	2.50
New York, N. Y.	2	1891	28	M.	60	2.50	3.00	3.00
	2	1899	30	M.	58	2.50	3.00	3.00

PRINTING AND PUBLISHING.

Bookbinders:								
Atlanta, Ga.	1	1895	5	M.	60	\$1.65	\$2.85	\$2.85
	1	1899	7	M.	60	2.00	3.00	3.00
Birmingham, Ala.	3	1891	2	M.	60	2.75	3.33	3.33
Buffalo, N. Y.	8	1891	(a)	M.	60	2.50	2.50	2.50
	8	1897	(a)	M.	57	2.50	2.50	2.50
	8	1899	(a)	M.	54	2.50	2.50	2.50
Chicago, Ill.	10	1891	35	M.	60	3.00	3.00	3.00
	10	1898	50	M.	54	2.83	2.83	2.83
	10	1899	50	M.	54	3.00	3.00	3.00
	11	1891	3	M.	60	3.00	3.00	3.00
	11	1898	12	M.	54	2.83	2.83	2.83
	11	1899	12	M.	54	3.00	3.00	3.00
New York, N. Y.	13	1893	35	M.	59	2.50	3.33	3.33
	13	1898	38	M.	56	2.50	3.33	3.33
	13	1899	40	M.	54	2.50	3.33	3.33
Raleigh, N. C.	19	1890	6	M.	60	1.66	2.33	2.33
	19	1899	6	M.	54	1.66	2.33	2.33
San Francisco, Cal.	20	1890	11	M.	59	3.00	4.50	4.50
	20	1897	17	M.	59	3.00	4.00	4.00
	20	1900	20	M.	59	2.75	4.00	4.00
Compositors:								
Atlanta, Ga.	1	1895	9	M.	60	1.35	2.85	2.85
	1	1899	16	M.	60	1.50	3.00	3.00
Birmingham, Ala.	3	1891	5	M.	60	2.75	3.00	3.00
	3	1898	6	M.	57	2.66	3.33	3.33
	3	1899	8	M.	54	2.66	3.33	3.33
	4	1890	2	M.	54	3.15	3.15	3.15
	4	1894	3	M.	54	3.33	3.75	3.75
Boston, Mass.	5	1892	7	M.	60	2.33	2.83	2.83
	5	1898	7	M.	60	2.33	3.00	3.00
	5	1899	12	M.	54	2.50	3.00	3.00
	5	1892	21	F.	53	.85	2.65	2.65
	5	1898	33	F.	53	1.03	2.65	2.65
	5	1899	50	F.	53	.86	2.65	2.65
	5	1900	44	F.	53	1.14	2.60	2.60
	6	1891	14	M.	60	2.58	3.00	3.00
	6	1894	26	M.	60	2.50	3.00	3.00
	6	1898	18	M.	54	2.50	3.16	3.16

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

PRINTING AND PUBLISHING—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Compositors—Concluded.								
Buffalo, N. Y.	8	1891	(a)	M.	60	\$2.50	\$2.50	\$2.50
	8	1897	(a)	M.	57	2.50	2.50	2.50
	8	1899	(a)	M.	54	2.50	2.50	2.50
Charlotte, N. C.	9	1895	3	M.	59	1.50	2.00	1.75
	9	1899	10	M.	59	1.50	2.50	1.73 ^a
Chicago, Ill.	10	1891	80	M.	60	3.00	3.00	3.00
	10	1898	80	M.	54	2.83	2.83	2.83
	10	1899	80	M.	54	3.00	3.00	3.00
	11	1891	40	M.	60	3.00	3.00	3.00
	11	1898	45	M.	54	2.83	2.83	2.83
	11	1899	50	M.	54	3.00	3.00	3.00
Cleveland, Ohio.	12	1890	13	M.	60	2.50	2.66 ^a	2.51 ^a
	12	1891	13	M.	60	2.50	2.50	2.50
	12	1898	13	M.	60	2.50	2.66 ^a	2.54
	12	1895	22	M.	58	2.41 ^a	2.74	2.44 ^a
	12	1897	10	M.	56	2.33 ^a	2.64 ^a	2.36 ^a
	12	1899	17	M.	53	2.21	2.50 ^a	2.22 ^a
	12	1900	15	M.	50	2.50	2.83 ^a	2.54 ^a
New York, N. Y.	13	1898	65	M.	59	3.00	3.00	3.00
	13	1898	75	M.	56 ^a	3.00	3.00	3.00
	13	1899	85	M.	54	3.00	3.00	3.00
Philadelphia, Pa.	18	1891	6	M.	60	1.66 ^a	2.66 ^a	2.41 ^a
	18	1892	5	M.	60	2.50	2.66 ^a	2.56 ^a
	18	1894	3	M.	60	2.00	2.50	2.16 ^a
	18	1895	3	M.	60	2.00	2.66 ^a	2.44 ^a
	18	1897	4	M.	60	2.00	2.66 ^a	2.41 ^a
	18	1899	3	M.	60	2.50	2.66 ^a	2.61
	18	1894	b 10	M.	60	.89 ^a	1.87 ^a	1.11
	18	1895	b 9	M.	60	.37 ^a	2.50	1.61
	18	1896	b 12	M.	60	1.17 ^a	2.50	1.70
	18	1897	b 11	M.	60	.43 ^a	2.09	1.49
	18	1898	b 13	M.	60	.88	2.08 ^a	1.49
	18	1899	b 7	M.	60	.78 ^a	1.67	1.13
	18	1900	b 20	M.	60	1.23	2.69	1.70 ^a
Raleigh, N. C.	19	1890	20	M.	60	2.33 ^a	2.33 ^a	2.33 ^a
	19	1899	15	M.	54	2.33 ^a	2.33 ^a	2.33 ^a
San Francisco, Cal.	20	1890	10	M.	59	2.00	4.16 ^a	2.91 ^a
	20	1895	11	M.	59	3.00	4.16 ^a	3.24
	20	1899	14	M.	59	2.66 ^a	4.33 ^a	3.02 ^a
	20	1900	15	M.	59	2.50	4.50	3.08 ^a
Compositors, machine:								
Atlanta, Ga.	2	1892	10	M.	48	3.00	3.00	3.00
	2	1895	10	M.	48	4.00	4.00	4.00
Birmingham, Ala.	4	1894	4	M.	42	3.01	3.01	3.01
Charlotte, N. C.	9	1896	4	M.	54	3.00	3.25	3.06 ^a
Coverers:								
Boston, Mass.	7	1891	2	M.	59	2.66 ^a	2.66 ^a	2.66 ^a
	7	1892	2	M.	59	1.83 ^a	2.83 ^a	2.33 ^a
	7	1893	2	M.	59	2.50	4.00	3.25
	7	1894	2	M.	59	4.00	5.00	4.50
	7	1895	2	M.	59	4.50	5.83 ^a	5.16 ^a
	7	1896	2	M.	59	2.33 ^a	4.50	3.41 ^a
	7	1897	2	M.	59	4.00	5.00	4.50
	7	1898	2	M.	59	3.83 ^a	4.50	4.16 ^a
	7	1899	2	M.	55	4.86 ^a	5.45	5.16 ^a
	7	1900	2	M.	55	4.13	4.41 ^a	4.27
Chicago, Ill.	11	1891	3	F.	60	c. 60	c. 1.00	c. 76 ^a
	11	1898	9	F.	54	c. 60	c. 1.00	c. 76 ^a
Cutters:								
Boston, Mass.	7	1891	4	M.	59	1.66 ^a	3.00	2.29
	7	1892	4	M.	59	2.33 ^a	3.33 ^a	2.75
	7	1893	4	M.	59	2.33 ^a	2.50	2.41 ^a
	7	1894	4	M.	59	1.66 ^a	3.00	2.37 ^a
	7	1895	5	M.	59	2.00	3.00	2.50
	7	1896	5	M.	59	2.00	3.00	2.43 ^a
	7	1897	5	M.	59	2.00	3.00	2.50
	7	1898	5	M.	59	2.33 ^a	3.00	2.60
	7	1899	4	M.	55	2.50	3.00	2.71
	7	1900	4	M.	55	2.33 ^a	3.00	2.62 ^a

a Not reported.

b Pieceworkers.

c Per 1,000 books.

TABLE I.

[Rates of wages
year in which
only one date
rates of wages
earnings have

Occupation

Electrotypers:
Atlanta, G
New York

Electrotypers'
New York

Engineers, sta
Charlotte,
Finishers :
Boston, M:

Buffalo, N.

Folders:
Chicago, I

Folders, hand
Boston, M:

Folders, mach
Boston, M:

Folders and g
San Franc

Forwarders:
Boston, M:

Gatherers:
Boston, M:

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

PRINTING AND PUBLISHING—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Gatherers—Concluded.								
Boston, Mass.—Concluded ..	7	1897	4	F.	59	\$1.00	\$1.33½	\$1.16½
	7	1898	4	F.	59	1.00	1.12½	1.12½
	7	1899	4	F.	55	1.00	1.50	1.29
	7	1900	4	F.	55	1.00	1.50	1.25
Chicago, Ill	10	1891	4	F.	48	a. 12	a. 12	a. 12
	11	1891	4	F.	60	a. 10	a. 10	a. 10
	11	1898	8	F.	64	a. 10	a. 10	a. 10
Gilders:								
Boston, Mass	7	1891	2	M.	59	2.83½	2.83½	2.83½
	7	1892	2	M.	59	4.00	4.00	4.00
	7	1893	2	M.	59	4.16½	4.33½	4.25
	7	1894	2	M.	59	3.50	4.16½	3.83½
	7	1895	2	M.	59	3.83½	4.16½	4.00
	7	1896	2	M.	59	3.00	3.00	3.00
	7	1897	3	M.	59	3.00	3.83½	3.39
	7	1898	2	M.	59	4.16½	5.00	4.58½
	7	1899	2	M.	55	3.72	4.05	3.88½
	7	1900	6	M.	55	3.50	3.50	3.50
Gold-leaf layers:								
Boston, Mass	7	1891	5	F.	59	.83½	1.50	1.30
	7	1892	5	F.	59	1.00	1.50	1.33½
	7	1893	5	F.	59	1.33½	1.50	1.40
	7	1894	5	F.	59	1.16½	1.50	1.40
	7	1895	7	F.	59	.83½	1.50	1.21½
	7	1896	5	F.	59	1.50	1.50	1.50
	7	1899	8	F.	55	1.50	1.50	1.50
Half-tone men, photo-engraving:								
New York, N. Y	b 14	1897	12	M.	48	4.16½	5.83½	4.50
Linemen, photo-engraving:								
New York, N. Y	b 14	1895	100	M.	48	3.00	3.66½	3.16½
	b 14	1897	120	M.	48	3.50	4.00	3.66½
Pasters:								
Boston, Mass	7	1891	6	F.	59	1.00	1.33½	1.14
	7	1893	9	F.	59	1.00	1.50	1.29½
	7	1894	10	F.	59	1.00	1.50	1.06½
	7	1895	13	F.	59	1.00	1.50	1.25½
	7	1896	11	F.	59	.83½	1.50	1.00
	7	1897	10	F.	59	.83½	1.50	1.23½
	7	1898	10	F.	59	.83½	1.50	1.20
	7	1899	10	F.	55	1.00	1.83½	1.31½
	7	1900	8	F.	55	.83½	1.66½	1.25
Press feeders:								
Boston, Mass	5	1892	16	M.	60	1.66½	1.66½	1.66½
	5	1899	18	M.	54	1.66½	1.66½	1.66½
	5	1900	18	M.	54	2.00	2.00	2.00
	6	1891	11	M.	60	1.50	1.66½	1.65
	6	1892	11	M.	60	1.50	1.83½	1.66½
	6	1896	11	M.	60	1.66½	2.00	1.72½
	6	1897	11	M.	60	1.50	2.00	1.76
	6	1898	11	M.	54	1.50	2.00	1.66½
	6	1900	9	M.	54	2.00	2.00	2.00
Buffalo, N. Y	8	1891	(c)	M.	60	.66½	.75	(c)
	8	1893	(c)	M.	60	.66½	.83½	(c)
	8	1894	(c)	M.	60	.83½	1.00	(c)
	8	1899	(c)	M.	54	.83½	1.25	(c)
Chicago, Ill	10	1891	30	M.	60	1.50	1.50	1.50
	10	1892	30	M.	60	1.75	1.75	1.75
	10	1897	40	M.	60	1.92	1.92	1.92
	10	1898	40	M.	54	1.83½	1.83½	1.83½
	10	1899	40	M.	54	1.92	1.92	1.92
	11	1891	7	M.	60	1.75	1.75	1.75
	11	1898	12	M.	54	1.83½	1.83½	1.83½
	11	1899	14	M.	54	1.92	1.92	1.92
New York, N. Y	13	1893	40	M.	59	1.00	1.66½	1.52
	13	1898	40	M.	54½	1.33½	2.00	1.66
	13	1899	40	M.	54	1.66½	2.00	1.76½

a Per 1,000 signatures.

b Information furnished by a member of the Photo-engravers' Union.

c Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

PRINTING AND PUBLISHING—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Press feeders—Concluded.								
New York, N. Y.—Concl'd	a 15	1891	700	M.	59	\$2.00	\$2.33 $\frac{1}{2}$	\$2.14 $\frac{1}{2}$
	a 15	1898	1,700	M.	57	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$
	a 15	1899	2,000	M.	54	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$	2.33 $\frac{1}{2}$
San Francisco, Cal.	20	1890	5	M.	59	1.25	1.66 $\frac{1}{2}$	1.33 $\frac{1}{2}$
	20	1899	10	M.	59	1.25	2.00	1.36 $\frac{1}{2}$
Pressmen:								
Atlanta, Ga.	1	1895	3	M.	60	2.15	3.00	2.61 $\frac{1}{2}$
	1	1899	3	M.	60	2.50	3.33 $\frac{1}{2}$	2.94 $\frac{1}{2}$
Birmingham, Ala.	3	1891	1	M.	60	3.00	3.00	3.00
	3	1898	2	M.	60	2.16 $\frac{1}{2}$	3.00	2.58 $\frac{1}{2}$
Boston, Mass.	5	1892	4	M.	60	2.50	3.33 $\frac{1}{2}$	2.87 $\frac{1}{2}$
	5	1899	5	M.	54	2.50	3.33 $\frac{1}{2}$	2.90
	6	1891	11	M.	60	2.50	4.50	3.18
	6	1892	11	M.	60	2.50	4.50	3.24
	6	1893	8	M.	60	2.50	4.50	3.46
	6	1894	8	M.	60	2.50	4.50	3.43 $\frac{1}{2}$
	6	1895	7	M.	60	2.50	4.50	3.45
	6	1896	7	M.	60	2.50	4.50	3.47 $\frac{1}{2}$
	6	1898	5	M.	54	2.50	4.16 $\frac{1}{2}$	3.46 $\frac{1}{2}$
	6	1900	7	M.	54	2.50	4.16 $\frac{1}{2}$	3.31
Buffalo, N. Y.	8	1891	(b)	M.	60	2.00	3.00	(b)
	8	1897	(b)	M.	57	2.25	3.00	(b)
	8	1899	(b)	M.	54	2.50	3.33 $\frac{1}{2}$	(b)
Charlotte, N. C.	9	1895	1	M.	59	2.00	2.00	2.00
Chicago, Ill.	10	1891	20	M.	60	3.50	3.50	3.50
	10	1898	25	M.	54	3.33 $\frac{1}{2}$	3.33 $\frac{1}{2}$	3.33 $\frac{1}{2}$
	10	1899	25	M.	54	3.50	3.50	3.50
	11	1891	4	M.	60	3.50	3.50	3.50
	11	1898	6	M.	54	3.33 $\frac{1}{2}$	3.33 $\frac{1}{2}$	3.33 $\frac{1}{2}$
	11	1899	8	M.	54	3.50	3.50	3.50
New York, N. Y.	13	1893	23	M.	59	3.33 $\frac{1}{2}$	4.00	3.54 $\frac{1}{2}$
	13	1898	23	M.	56 $\frac{1}{2}$	3.33 $\frac{1}{2}$	4.00	3.54 $\frac{1}{2}$
	13	1899	23	M.	54	3.33 $\frac{1}{2}$	4.00	3.54 $\frac{1}{2}$
	a 16	1895	1,075	M.	59	3.33 $\frac{1}{2}$	6.66 $\frac{1}{2}$	3.83 $\frac{1}{2}$
	a 16	1898	1,500	M.	57	3.33 $\frac{1}{2}$	6.66 $\frac{1}{2}$	3.83 $\frac{1}{2}$
	a 16	1899	1,562	M.	54	3.33 $\frac{1}{2}$	6.66 $\frac{1}{2}$	3.83 $\frac{1}{2}$
Philadelphia, Pa.	18	1891	8	M.	60	2.66 $\frac{1}{2}$	3.66 $\frac{1}{2}$	3.00
	18	1894	8	M.	60	2.00	2.75	2.24
	18	1895	8	M.	60	2.66 $\frac{1}{2}$	3.66 $\frac{1}{2}$	3.04
	18	1897	5	M.	60	2.66 $\frac{1}{2}$	3.33 $\frac{1}{2}$	3.00
	18	1899	7	M.	60	2.66 $\frac{1}{2}$	3.33 $\frac{1}{2}$	2.93
	18	1900	9	M.	60	3.00	3.41 $\frac{1}{2}$	3.16
Raleigh, N. C.	19	1890	4	M.	60	1.25	1.25	1.25
	19	1899	4	M.	54	1.25	1.25	1.25
San Francisco, Cal.	20	1890	4	M.	59	2.50	3.50	3.00
	20	1895	7	M.	59	2.50	4.00	3.14 $\frac{1}{2}$
	20	1899	9	M.	59	2.50	4.16 $\frac{1}{2}$	2.85
Proof readers: (c)								
Boston, Mass.	5	1892	4	F.	53	1.44	3.33 $\frac{1}{2}$	2.01 $\frac{1}{2}$
	5	1898	6	F.	53	1.50	4.16 $\frac{1}{2}$	2.21 $\frac{1}{2}$
	5	1899	6	F.	53	1.66 $\frac{1}{2}$	4.16 $\frac{1}{2}$	2.51
	5	1900	5	F.	53	1.66 $\frac{1}{2}$	4.16 $\frac{1}{2}$	2.43 $\frac{1}{2}$
Sewers:								
Boston, Mass.	7	1891	8	F.	59	.66 $\frac{1}{2}$	1.83 $\frac{1}{2}$	1.23
	7	1892	5	F.	59	1.16 $\frac{1}{2}$	1.83 $\frac{1}{2}$	1.40
	7	1893	7	F.	59	1.33 $\frac{1}{2}$	1.66 $\frac{1}{2}$	1.43
	7	1894	6	F.	59	1.00	1.50	1.28
	7	1895	6	F.	59	1.00	1.83 $\frac{1}{2}$	1.47
	7	1896	7	F.	59	.83 $\frac{1}{2}$	1.50	1.19
	7	1897	6	F.	59	1.33 $\frac{1}{2}$	1.50	1.39
	7	1898	5	F.	59	1.16 $\frac{1}{2}$	1.50	1.30
	7	1899	5	F.	55	1.50	1.83 $\frac{1}{2}$	1.56 $\frac{1}{2}$
	7	1900	6	F.	55	1.16 $\frac{1}{2}$	1.66 $\frac{1}{2}$	1.30 $\frac{1}{2}$
Chicago, Ill.	11	1891	11	F.	60	.41 $\frac{1}{2}$	1.16 $\frac{1}{2}$	.82
	11	1898	22	F.	54	.41 $\frac{1}{2}$	1.16 $\frac{1}{2}$	.82

a Information furnished by secretary of union.
b Not reported.

c Including copyholders.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

PRINTING AND PUBLISHING—Concluded.

Occupation and location.	Estab-lish-ment num-ber.	First year and years of change.	Num-ber of employ-ees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Sewers—Concluded.								
San Francisco, Cal.	20	1890	8	F.	53	\$1.33½	\$1.66½	\$1.50
	20	1898	8	F.	53	1.33½	1.66½	1.46
	20	1900	14	F.	53	1.16½	1.66½	1.27½
Sheet workers:								
New York, N. Y.	13	1898	40	F.	59	1.50	2.00	1.58½
	13	1898	50	F.	56½	1.50	2.00	1.58½
	13	1899	55	F.	54	1.50	2.00	1.58½
Stereotypers:								
New York, N. Y.	a 17	1895	400	M.	59	4.00	4.50	4.31½
	a 17	1898	425	M.	54	4.00	4.50	4.29½

SHIPBUILDING.

Blacksmiths:								
Boston, Mass.	1	1891	20	M.	60	\$2.50	\$3.00	\$2.75
	1	1892	20	M.	54	2.25	2.70	2.47½
Cleveland, Ohio.	2	1890	10	M.	60	2.12½	3.25	2.52½
	2	1891	10	M.	60	2.00	3.25	2.52½
	2	1892	9	M.	60	2.25	3.25	2.57
	2	1898	8	M.	60	2.25	3.25	2.53
	2	1894	9	M.	60	2.10	2.92½	2.30½
	2	1895	11	M.	60	1.75	3.00	2.35
	2	1896	9	M.	60	2.25	3.25	2.54
	2	1898	5	M.	60	2.37½	3.25	2.65
	2	1899	11	M.	60	2.25	3.25	2.61
	2	1900	15	M.	60	2.25	4.00	2.57½
Blacksmiths' helpers:								
Boston, Mass.	1	1891	18	M.	60	1.75	1.75	1.75
	1	1892	18	M.	54	1.57½	1.57½	1.57½
	1	1893	18	M.	54	1.66½	1.66½	1.66½
Cleveland, Ohio.	2	1890	10	M.	60	1.50	1.75	1.70
	2	1892	12	M.	60	1.40	2.00	1.57½
	2	1893	10	M.	60	1.50	2.00	1.62½
	2	1894	7	M.	60	1.21½	1.80	1.46
	2	1895	12	M.	60	1.35	1.62½	1.47½
	2	1896	11	M.	60	1.50	1.65	1.63
	2	1897	5	M.	60	1.45	1.65	1.58
	2	1898	6	M.	60	1.50	1.65	1.61½
	2	1899	11	M.	60	1.50	1.80	1.64
	2	1900	20	M.	60	1.40	2.00	1.67
Boiler makers:								
Boston, Mass.	1	1891	100	M.	60	2.50	3.50	2.70
	1	1892	100	M.	54	2.50	3.50	2.70
Cleveland, Ohio.	2	1890	60	M.	60	1.87½	2.75	2.29
	2	1891	49	M.	60	2.00	2.75	2.35
	2	1892	30	M.	60	2.00	2.75	2.28½
	2	1893	23	M.	60	2.00	2.62½	2.30
	2	1894	62	M.	60	1.80	2.70	2.10
	2	1895	54	M.	60	1.75	2.37½	2.19
	2	1896	32	M.	60	1.65	3.00	2.32½
	2	1897	15	M.	60	2.25	2.87½	2.54
	2	1898	21	M.	60	2.25	2.62½	2.52
	2	1899	28	M.	60	2.25	2.75	2.52
	2	1900	56	M.	60	2.00	3.00	2.52
Boiler makers' helpers:								
Boston, Mass.	1	1891	40	M.	60	1.75	1.75	1.75
	1	1892	40	M.	54	1.75	1.75	1.75
Cleveland, Ohio.	2	1890	54	M.	60	1.40	1.87½	1.52½
	2	1891	40	M.	60	1.40	1.75	1.51½
	2	1892	30	M.	60	1.30	1.75	1.51½
	2	1898	22	M.	60	1.40	1.75	1.49
	2	1894	71	M.	60	1.08	1.57½	1.29½
	2	1895	83	M.	60	1.20	1.60	1.31

a Information furnished by officer of union.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

SHIPBUILDING—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Boiler makers' helpers—Concl'd.								
Cleveland, Ohio—Concl'd...	2	1896	42	M.	60	\$1.40	\$1.50	\$1.49
	2	1897	23	M.	60	1.40	1.75	1.53½
	2	1899	56	M.	60	1.35	2.00	1.57½
	2	1900	86	M.	60	1.40	1.90	1.56½
Chippers:								
Cleveland, Ohio.....	2	1890	6	M.	60	1.50	1.75	1.61
	2	1891	5	M.	60	1.75	1.85	1.79
	2	1892	5	M.	60	1.50	1.86	1.72
	2	1893	7	M.	60	1.75	1.85	1.76½
	2	1894	6	M.	60	1.67½	1.66½	1.59
	2	1896	5	M.	60	1.75	1.85	1.77
	2	1898	6	M.	60	1.65	1.85	1.73½
	2	1899	3	M.	60	1.75	1.86	1.81½
	2	1900	11	M.	60	1.75	2.25	1.87½
Core makers:								
Cleveland, Ohio.....	2	1890	6	M.	60	1.50	2.25	1.91½
	2	1891	7	M.	60	1.75	2.25	1.96½
	2	1892	14	M.	60	1.75	2.25	1.96
	2	1893	10	M.	60	2.00	2.75	2.22½
	2	1894	10	M.	60	1.57½	2.02½	1.86½
	2	1896	10	M.	60	1.80	2.02½	1.89
	2	1896	9	M.	60	2.00	2.25	2.11
	2	1899	11	M.	60	2.00	2.25	2.10½
	2	1900	9	M.	60	2.25	2.50	2.29
Machinists:								
Boston, Mass.....	1	1891	75	M.	60	2.25	3.50	2.50
	1	1892	80	M.	54	2.02½	3.15	2.25
	1	1899	100	M.	54	2.25	3.15	2.47½
Cleveland, Ohio.....	2	1890	130	M.	60	2.00	3.25	2.32
	2	1891	116	M.	60	2.00	3.25	2.33
	2	1892	121	M.	60	1.87½	3.25	2.29½
	2	1893	93	M.	60	2.00	3.25	2.32½
	2	1894	96	M.	60	1.75	2.92½	2.12½
	2	1896	101	M.	60	1.80	3.25	2.15½
	2	1896	96	M.	60	2.00	3.25	2.34½
	2	1897	36	M.	60	2.00	3.00	2.35
	2	1899	74	M.	60	2.00	3.25	2.41
	2	1900	131	M.	60	2.00	3.25	2.43½
Machinists' helpers:								
Boston, Mass.....	1	1891	15	M.	60	1.50	2.00	1.85
	1	1892	17	M.	54	1.35	1.80	1.66½
Cleveland, Ohio.....	2	1890	49	M.	60	1.25	1.75	1.53½
	2	1891	51	M.	60	1.25	1.80	1.50
	2	1892	26	M.	60	1.25	1.75	1.52
	2	1893	46	M.	60	1.25	1.90	1.55½
	2	1894	53	M.	60	1.12½	1.80	1.40½
	2	1896	54	M.	60	1.25	1.80	1.33½
	2	1896	49	M.	60	1.25	1.75	1.45
	2	1897	15	M.	60	1.40	1.50	1.46½
	2	1898	33	M.	60	1.40	1.75	1.50½
	2	1899	57	M.	60	1.40	1.80	1.54
	2	1900	91	M.	60	1.50	2.00	1.59½
Molders:								
Cleveland, Ohio.....	2	1890	29	M.	60	2.00	3.10	2.51½
	2	1891	24	M.	60	2.00	3.10	2.54½
	2	1892	19	M.	60	2.50	3.10	2.66½
	2	1893	22	M.	60	1.75	3.10	2.60
	2	1894	18	M.	60	2.25	2.79	2.49
	2	1895	8	M.	60	2.25	2.79	2.54½
	2	1896	25	M.	60	2.00	3.10	2.59½
	2	1897	11	M.	60	2.25	3.10	2.72½
	2	1898	20	M.	60	2.00	3.10	2.58
	2	1899	23	M.	60	2.00	3.10	2.61
	2	1900	38	M.	60	2.20	3.40	2.84½
Molders' helpers:								
Cleveland, Ohio.....	2	1890	28	M.	60	1.50	1.75	1.55
	2	1891	27	M.	60	1.50	1.75	1.54½
	2	1892	15	M.	60	1.50	1.60	1.50½

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

SHIPBUILDING—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Molders' helpers—Concluded.								
Cleveland, Ohio—Concl'd...	2	1894	15	M.	60	\$1.35	\$1.44	\$1.35½
	2	1895	5	M.	60	1.35	1.35	1.35
	2	1896	13	M.	60	1.50	1.50	1.50
	2	1900	46	M.	60	1.50	2.00	1.51½
Pattern makers:								
Boston, Mass	1	1891	8	M.	60	2.50	3.00	2.85
	1	1892	9	M.	54	2.25	2.70	2.56½
	1	1899	21	M.	54	2.25	3.00	2.70
Cleveland, Ohio.....	2	1890	6	M.	60	2.00	2.85	2.51½
	2	1891	7	M.	60	2.25	3.00	2.64½
	2	1893	8	M.	60	2.00	3.00	2.65½
	2	1894	6	M.	60	2.02½	2.70	2.43½
	2	1895	4	M.	60	2.25	2.70	2.49½
	2	1896	7	M.	60	2.50	3.00	2.73
	2	1898	7	M.	60	2.50	3.00	2.67
	2	1899	6	M.	60	2.50	3.00	2.75
	2	1900	11	M.	60	2.50	3.50	2.79

SILK GOODS.

Blockers:								
New York, N. Y	1	1891	15	M.	59	\$0.54	\$0.77	\$0.61½
	1	1899	23	M.	59	.58½	.83½	.66½
Bunchers, ribbon:								
New York, N. Y	1	1891	25	F.	59	.46	.77½	.62½
	1	1898	32	F.	59	.46½	.79	.63½
	1	1899	36	F.	59	.50	.83½	.66½
Doublers:								
Paterson, N. J	2	1891	(a)	(a)	60	.50	1.00	(a)
	2	1899	(a)	(a)	55	.50	1.00	(a)
Dyers:								
New York, N. Y	1	1891	6	M.	59	1.83½	1.83½	1.83½
	1	1898	8	M.	59	1.90	1.90	1.90
	1	1899	9	M.	59	2.00	2.00	2.00
Quillers:								
Paterson, N. J	2	1891	(a)	(a)	60	.83½	1.16½	(a)
	2	1899	(a)	(a)	55	.83½	1.16½	(a)
Reelers:								
Paterson, N. J	2	1891	(a)	(a)	60	.41½	1.16½	(a)
	2	1899	(a)	(a)	55	.41½	1.16½	(a)
Spinners:								
New York, N. Y	1	1891	10	M.	59	1.54	1.54	1.54
	1	1898	13	M.	59	1.58½	1.58½	1.58½
	1	1899	15	M.	59	1.66½	1.66½	1.66½
Spoolers:								
New York, N. Y	1	1891	20	F.	59	.77½	1.08½	.91½
	1	1898	27	F.	59	.79	1.11	.96
	1	1899	30	F.	59	.83½	1.16½	1.00
Warpers:								
New York, N. Y	1	1891	20	F.	59	.77½	1.08½	.91½
	1	1898	32	F.	59	.79	1.11	.96
	1	1899	36	F.	59	.83½	1.16½	1.00
Paterson, N. J	2	1891	(a)	(a)	60	1.16½	2.50	(a)
	2	1899	(a)	(a)	55	1.16½	2.50	(a)
Weavers:								
New York, N. Y	1	1891	125	M.	59	1.55	2.77½	2.16½
	1	1898	170	M.	59	1.56½	2.82	2.19
	1	1899	190	M.	59	1.66½	3.00	2.33½
Paterson, N. J	2	1891	(a)	(a)	60	1.08½	3.00	(a)
	2	1900	(a)	(a)	55	1.20	3.33½	(a)
Weavers' helpers:								
New York, N. Y	1	1891	25	M.	59	.93	1.39½	1.16½
	1	1898	34	M.	59	.94½	1.42	1.18
	1	1899	38	M.	59	1.00	1.50	1.25

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

SILK GOODS—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Winders:								
New York, N. Y.	1	1891	20	F.	59	\$0.77½	\$1.06½	\$0.91½
	1	1898	27	F.	59	.79	1.11	.96
	1	1899	30	F.	59	.83½	1.16½	1.00
Paterson, N. J.	2	1891	(a)	(a)	60	.50	1.33½	(a)
	2	1899	(a)	(a)	55	.50	1.33½	(a)

STEAM RAILROADS.

[The seven roads reporting are all in the northern and eastern sections of the United States.]

Baggage men, train	3	1894	87	M.	(a)	\$1.75	\$2.48	\$2.14
	3	1895	87	M.	(a)	1.90	2.40	2.14
	3	1896	88	M.	(a)	1.80	2.40	2.13½
	3	1898	100	M.	(a)	1.78	2.40	2.13
	3	1899	96	M.	(a)	1.80	2.40	2.13½
	5	1894	84	M.	(a)	1.80	2.30	2.20½
	5	1897	77	M.	(a)	1.90	2.85	2.25
	5	1898	76	M.	(a)	1.90	2.30	2.25½
	5	1899	61	M.	(a)	2.00	2.30	2.29
	6	1891	41	M.	(a)	2.00	2.11	2.06
Brakemen	4	1891	1,202	M.	(a)	1.40	2.00	1.86
	4	1893	1,418	M.	(a)	1.42	2.00	1.86
	4	1896	1,699	M.	(a)	1.50	2.20	1.86
	4	1900	1,746	M.	(a)	1.50	2.20	1.85
Brakemen, freight	3	1894	640	M.	(a)	1.63	2.65	2.02
	3	1895	675	M.	(a)	1.63	2.00	1.94
	3	1898	713	M.	(a)	1.58	2.00	1.93½
	3	1899	684	M.	(a)	1.58	2.00	1.94
	3	1900	826	M.	(a)	1.58	2.20	1.96½
	3	1894	425	M.	(a)	b.15	b.178	b.157½
	3	1895	424	M.	(a)	b.15	b.160	b.168½
Brakemen, freight and shifting.	5	1894	1,828	M.	(a)	1.65	2.30	1.73½
	5	1895	1,894	M.	(a)	1.65	2.30	1.71½
	5	1897	1,657	M.	(a)	1.65	2.30	1.73
	5	1898	1,580	M.	(a)	1.65	2.30	1.72½
	5	1900	1,578	M.	(a)	1.65	2.30	1.77½
Brakemen, freight and yard	6	1891	392	M.	(a)	1.75	2.00	1.87½
Brakemen, passenger	3	1894	184	M.	(a)	1.63	2.60	1.92½
	3	1895	195	M.	(a)	1.50	2.00	1.79
	3	1896	197	M.	(a)	1.50	2.00	1.78½
	3	1898	202	M.	(a)	1.50	2.00	1.79½
	3	1899	185	M.	(a)	1.50	2.25	1.80½
	3	1900	198	M.	(a)	1.50	2.25	1.80
	5	1894	143	M.	(a)	1.65	1.85	1.77½
	5	1895	114	M.	(a)	1.65	2.00	1.83½
	5	1896	113	M.	(a)	1.65	2.00	1.84½
	5	1897	114	M.	(a)	1.70	2.00	1.85
	5	1898	104	M.	(a)	1.70	2.00	1.85½
	5	1899	87	M.	(a)	1.70	2.00	1.87½
	5	1900	83	M.	(a)	1.80	2.00	1.88½
	6	1891	116	M.	(a)	1.75	2.00	1.89
Carpenters	1	1890	990	M.	(a)	(a)	(a)	1.92½
	1	1891	1,229	M.	(a)	(a)	(a)	1.57½
	1	1892	1,157	M.	(a)	(a)	(a)	1.71
	1	1893	1,056	M.	(a)	(a)	(a)	1.67
	1	1894	883	M.	(a)	(a)	(a)	1.65
	1	1895	772	M.	(a)	(a)	(a)	1.94
	1	1896	855	M.	(a)	(a)	(a)	1.78½
	1	1897	915	M.	(a)	(a)	(a)	2.08
	1	1898	822	M.	(a)	(a)	(a)	1.92½
	1	1899	749	M.	(a)	(a)	(a)	1.86
	2	1890	551	M.	(a)	(a)	(a)	1.86
	2	1891	564	M.	(a)	(a)	(a)	1.84

a Not reported.

b Per hour.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

STEAM RAILROADS—Continued.

Occupation and location.	Establishment num.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Carpenters—Concluded	2	1892	577	M.	(a)	(a)	(a)	\$1.80
	2	1898	529	M.	(a)	(a)	(a)	1.85
	2	1894	489	M.	(a)	(a)	(a)	1.89
	2	1896	464	M.	(a)	(a)	(a)	1.83
	2	1896	472	M.	(a)	(a)	(a)	1.78
	2	1898	450	M.	(a)	(a)	(a)	1.77
	2	1899	541	M.	(a)	(a)	(a)	1.96
	2	1900	507	M.	(a)	(a)	(a)	2.04
	7	1894	871	M.	(a)	(a)	(a)	2.26
	7	1896	978	M.	(a)	(a)	(a)	2.24
	7	1896	943	M.	(a)	(a)	(a)	2.22
	7	1897	889	M.	(a)	(a)	(a)	2.23
	7	1900	(a)	(a)	(a)	(a)	(a)	(a)
Conductors	1	1890	606	M.	(a)	(a)	(a)	2.79½
	1	1891	651	M.	(a)	(a)	(a)	2.82
	1	1892	691	M.	(a)	(a)	(a)	2.78½
	1	1893	621	M.	(a)	(a)	(a)	2.74
	1	1894	591	M.	(a)	(a)	(a)	2.82½
	1	1895	585	M.	(a)	(a)	(a)	2.97½
	1	1896	605	M.	(a)	(a)	(a)	2.82
	1	1897	568	M.	(a)	(a)	(a)	2.94½
	1	1898	613	M.	(a)	(a)	(a)	2.93
	1	1899	600	M.	(a)	(a)	(a)	2.96½
	2	1890	273	M.	(a)	(a)	(a)	2.76
	2	1891	280	M.	(a)	(a)	(a)	2.81
	2	1892	284	M.	(a)	(a)	(a)	2.82
	2	1893	292	M.	(a)	(a)	(a)	2.80
	2	1894	250	M.	(a)	(a)	(a)	2.92
	2	1896	195	M.	(a)	(a)	(a)	2.94
	2	1897	235	M.	(a)	(a)	(a)	2.92
	2	1898	261	M.	(a)	(a)	(a)	2.91
	2	1899	305	M.	(a)	(a)	(a)	2.89
	2	1900	275	M.	(a)	(a)	(a)	2.86
	4	1891	374	M.	(a)	\$1.75	\$3.84	2.75
	4	1893	476	M.	(a)	2.07	3.84	2.64
	4	1895	502	M.	(a)	2.50	3.84	2.68
	4	1896	592	M.	(a)	2.00	4.00	2.77
	4	1899	604	M.	(a)	2.00	4.00	2.78
	4	1900	623	M.	(a)	2.00	4.00	2.75
	7	1894	542	M.	(a)	(a)	(a)	3.32
	7	1896	574	M.	(a)	(a)	(a)	3.31
	7	1896	617	M.	(a)	(a)	(a)	3.29
	7	1897	584	M.	(a)	(a)	(a)	3.30
	7	1899	732	M.	(a)	(a)	(a)	3.26
	7	1900	(a)	(a)	(a)	(a)	(a)	(a)
Conductors, freight	3	1894	203	M.	(a)	2.08	3.00	2.50½
	3	1895	221	M.	(a)	2.08	3.00	2.51½
	3	1896	220	M.	(a)	2.08	3.00	2.50½
	3	1898	239	M.	(a)	2.08	3.00	2.49½
	3	1899	236	M.	(a)	2.08	3.00	2.47
	3	1900	248	M.	(a)	2.00	3.00	2.58½
Conductors, freight and shifting	3	1894	116	M.	(a)	b. 1700	b. 1910	b. 1776
	5	1894	512	M.	(a)	1.75	2.50	2.28½
	5	1895	542	M.	(a)	1.75	3.05	2.28½
	5	1896	581	M.	(a)	1.90	2.50	2.30
	5	1897	486	M.	(a)	1.90	2.50	2.32
	5	1898	494	M.	(a)	2.15	2.50	2.34
	5	1899	533	M.	(a)	2.15	2.50	2.34½
Conductors, freight and yard ...	6	1891	86	M.	(a)	2.30	2.88	2.52½
	6	1899	128	M.	(a)	2.50	3.00	2.85½
Conductors, passenger	3	1894	122	M.	(a)	2.25	3.69	3.21½
	3	1896	129	M.	(a)	2.20	3.69	3.20
	3	1897	136	M.	(a)	2.20	3.69	3.19½
	3	1898	132	M.	(a)	2.25	3.69	3.21
	3	1900	138	M.	(a)	2.25	3.69	3.27
	5	1894	88	M.	(a)	2.00	3.25	2.99½
	5	1896	88	M.	(a)	2.13½	3.50	3.04½

a Not reported.

b Per hour.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

STEAM RAILROADS—Continued.

Occupation and location.	Estab-lish-ment num-ber.	First year and years of change.	Num-ber of em-ploy-ees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Conductors, passenger—Concl'd.	5	1896	82	M.	(a)	\$2.13½	\$3.50	\$3.08½
	5	1897	81	M.	(a)	1.97½	3.50	3.11
	5	1898	84	M.	(a)	1.97½	3.50	3.16
	5	1899	64	M.	(a)	2.15	3.50	3.23
	5	1900	65	M.	(a)	2.15	3.50	3.26½
	6	1891	51	M.	(a)	2.88	3.84	3.77
Engineers, locomotive	6	1900	58	M.	(a)	3.20	3.84	3.83
	1	1890	1,012	M.	(a)	(a)	(a)	3.25½
	1	1891	1,038	M.	(a)	(a)	(a)	3.35
	1	1892	1,106	M.	(a)	(a)	(a)	3.24½
	1	1893	1,008	M.	(a)	(a)	(a)	3.28
	1	1896	921	M.	(a)	(a)	(a)	3.47½
	1	1896	938	M.	(a)	(a)	(a)	3.46½
	1	1897	922	M.	(a)	(a)	(a)	3.49
	1	1898	977	M.	(a)	(a)	(a)	3.45½
	1	1899	1,009	M.	(a)	(a)	(a)	3.49½
	2	1890	438	M.	(a)	(a)	(a)	3.33
	2	1891	445	M.	(a)	(a)	(a)	3.34
	2	1893	473	M.	(a)	(a)	(a)	3.31
	2	1894	373	M.	(a)	(a)	(a)	3.33
	2	1899	433	M.	(a)	(a)	(a)	3.34
	2	1900	467	M.	(a)	(a)	(a)	3.37
	4	1891	481	M.	(a)	2.00	3.50	3.13
	4	1893	558	M.	(a)	2.20	3.50	3.19
	4	1895	644	M.	(a)	2.20	4.08	3.22
	4	1898	714	M.	(a)	2.20	4.50	3.22
	4	1899	712	M.	(a)	2.20	4.50	3.19
	4	1900	739	M.	(a)	2.25	4.50	3.22
	6	1891	161	M.	(a)	3.45	4.00	3.84½
	6	1900	198	M.	(a)	3.60	4.00	3.88½
	6	1891	11	M.	(a)	b. 0.0350	b. 0.0350	b. 0.035½
	6	1899	60	M.	(a)	b. 0.0350	b. 0.0400	b. 0.036½
	7	1894	698	M.	(a)	(a)	(a)	3.85
	7	1895	746	M.	(a)	(a)	(a)	3.86
	7	1896	785	M.	(a)	(a)	(a)	3.82
	7	1897	768	M.	(a)	(a)	(a)	3.84
	7	1898	752	M.	(a)	(a)	(a)	3.86
	7	1899	963	M.	(a)	(a)	(a)	3.82
	7	1900	(a)	(a)	(a)	(a)	(a)	(a)
Engineers, locomotive, freight ..	3	1894	222	M.	(a)	2.57	4.26	3.24
	3	1895	242	M.	(a)	2.47	4.26	3.29½
	3	1896	253	M.	(a)	2.47	4.26	3.27½
	3	1897	212	M.	(a)	2.47	4.26	3.34½
	3	1898	241	M.	(a)	2.43	4.26	3.29
	3	1899	253	M.	(a)	2.47	3.69	3.28½
	3	1900	283	M.	(a)	2.47	3.75	3.29½
	3	1894	138	M.	(a)	c. 2000	c. 2800	c. 254½
	3	1896	148	M.	(a)	c. 2000	c. 2800	c. 260½
	3	1897	143	M.	(a)	c. 2100	c. 2800	c. 261½
	3	1898	163	M.	(a)	c. 2100	c. 2800	c. 256½
	3	1899	122	M.	(a)	c. 2000	c. 2800	c. 261½
Engineers, locomotive, freight and shifting	3	1900	120	M.	(a)	c. 2100	c. 2800	c. 259½
	5	1894	593	M.	(a)	2.25	3.25	3.15
	5	1898	616	M.	(a)	2.25	3.25	3.16
	5	1899	671	M.	(a)	2.50	3.50	3.10
	5	1900	582	M.	(a)	2.50	3.50	3.13
Engineers, locomotive, passenger	3	1894	137	M.	(a)	2.75	4.00	3.20
	3	1896	138	M.	(a)	2.75	4.00	3.19
	3	1898	158	M.	(a)	2.75	4.00	3.20½
	3	1899	146	M.	(a)	2.75	4.07	3.21½
	3	1900	153	M.	(a)	2.75	5.50	3.88
	5	1894	117	M.	(a)	2.75	3.50	3.25½
	5	1896	123	M.	(a)	3.00	3.50	3.28
	5	1897	125	M.	(a)	3.00	3.50	3.27½
	5	1898	123	M.	(a)	2.75	3.50	3.27
	5	1899	91	M.	(a)	2.75	3.50	3.27½
	5	1900	91	M.	(a)	3.25	3.50	3.28½

a Not reported.

b Per mile.

c Per hour.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

STEAM RAILROADS—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Firemen, locomotive.....	1	1890	1,090	M.	(a)	(a)	(a)	\$1.83½
	1	1891	1,094	M.	(a)	(a)	(a)	1.91
	1	1892	1,165	M.	(a)	(a)	(a)	1.88
	1	1893	1,083	M.	(a)	(a)	(a)	1.93½
	1	1894	1,022	M.	(a)	(a)	(a)	1.94
	1	1895	987	M.	(a)	(a)	(a)	2.09½
	1	1896	1,024	M.	(a)	(a)	(a)	2.07
	1	1897	998	M.	(a)	(a)	(a)	2.06½
	1	1898	1,042	M.	(a)	(a)	(a)	2.06½
	1	1899	1,072	M.	(a)	(a)	(a)	2.09
	2	1890	419	M.	(a)	(a)	(a)	2.16
	2	1891	420	M.	(a)	(a)	(a)	2.17
	2	1892	437	M.	(a)	(a)	(a)	2.16
	2	1893	459	M.	(a)	(a)	(a)	2.15
	2	1896	271	M.	(a)	(a)	(a)	2.16
	2	1897	310	M.	(a)	(a)	(a)	2.15
	2	1899	471	M.	(a)	(a)	(a)	2.12
	2	1900	480	M.	(a)	(a)	(a)	2.14
	4	1891	508	M.	(a)	\$1.40	\$2.10	1.85
	4	1893	563	M.	(a)	1.50	2.10	1.85
	4	1895	556	M.	(a)	1.50	2.50	1.89
	4	1899	700	M.	(a)	1.50	2.50	1.87
	4	1900	741	M.	(a)	1.60	2.50	1.89
	6	1891	185	M.	(a)	1.75	2.25	2.00½
	6	1899	228	M.	(a)	1.50	2.25	2.00½
	6	1891	35	M.	(a)	b. 0200	b. 0200	b. 0200
	6	1899	53	M.	(a)	b. 0200	b. 0225	b. 0204
	7	1894	690	M.	(a)	(a)	(a)	2.09
	7	1896	785	M.	(a)	(a)	(a)	2.08
	7	1897	743	M.	(a)	(a)	(a)	2.07
	7	1898	747	M.	(a)	(a)	(a)	2.08
	7	1900	(a)	(a)	(a)	(a)	(a)	(a)
Firemen, locomotive, freight...	3	1894	212	M.	(a)	1.70	2.70	2.13½
	3	1895	238	M.	(a)	1.70	2.10	2.05½
	3	1896	230	M.	(a)	1.88	2.10	2.05½
	3	1897	215	M.	(a)	1.70	2.10	2.05½
	3	1898	216	M.	(a)	1.58	2.10	2.08½
	3	1899	238	M.	(a)	1.70	2.10	2.04½
	3	1900	281	M.	(a)	1.60	2.20	2.04½
	3	1894	137	M.	(a)	c. 1600	c. 1990	c. 1782
	3	1896	138	M.	(a)	c. 1500	c. 1750	c. 1736
	3	1896	137	M.	(a)	c. 1500	c. 1750	c. 1735
	3	1897	142	M.	(a)	c. 1500	c. 1750	c. 1738
	3	1900	128	M.	(a)	c. 1500	c. 1750	c. 1733
Firemen, locomotive, freight and shifting	5	1894	587	M.	(a)	1.50	2.40	2.07
	5	1895	620	M.	(a)	1.60	2.75	2.08½
	5	1896	634	M.	(a)	1.60	2.75	2.07
	5	1897	637	M.	(a)	1.60	2.40	2.07
	5	1898	650	M.	(a)	1.75	2.30	2.07½
	5	1899	659	M.	(a)	1.60	2.30	1.99½
	5	1900	697	M.	(a)	1.40	2.75	2.01½
	3	1894	126	M.	(a)	1.83	2.75	2.05½
	3	1895	138	M.	(a)	1.83	2.10	2.02½
Firemen, locomotive, passenger.	3	1896	146	M.	(a)	1.80	2.10	2.02½
	3	1898	158	M.	(a)	1.70	2.10	2.02
	3	1899	147	M.	(a)	1.70	2.62	2.02½
	3	1900	144	M.	(a)	1.70	3.15	2.30½
	5	1894	131	M.	(a)	1.90	2.40	2.17
	5	1895	116	M.	(a)	2.00	2.40	2.15½
	5	1896	131	M.	(a)	1.90	2.40	2.14½
	5	1897	120	M.	(a)	1.90	2.40	2.15½
	5	1898	108	M.	(a)	2.10	2.40	2.16
	5	1899	88	M.	(a)	1.90	2.40	2.15½
	5	1900	88	M.	(a)	2.00	2.40	2.15
Machinists.....	1	1890	763	M.	(a)	(a)	(a)	2.05
	1	1891	697	M.	(a)	(a)	(a)	1.98
	1	1892	732	M.	(a)	(a)	(a)	1.98½

a Not reported.

b Per mile.

c Per hour.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

STEAM RAILROADS—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Machinists—Concluded.....	1	1893	626	M.	(a)	(a)	(a)	\$1.88½
	1	1894	693	M.	(a)	(a)	(a)	1.77½
	1	1895	786	M.	(a)	(a)	(a)	2.07½
	1	1896	798	M.	(a)	(a)	(a)	2.12
	1	1897	835	M.	(a)	(a)	(a)	2.16
	1	1898	841	M.	(a)	(a)	(a)	2.10
	1	1899	843	M.	(a)	(a)	(a)	2.18½
	2	1890	243	M.	(a)	(a)	(a)	2.17
	2	1891	250	M.	(a)	(a)	(a)	2.18
	2	1892	262	M.	(a)	(a)	(a)	2.14
	2	1893	253	M.	(a)	(a)	(a)	2.16
	2	1894	240	M.	(a)	(a)	(a)	2.22
	2	1895	237	M.	(a)	(a)	(a)	2.16
	2	1896	216	M.	(a)	(a)	(a)	2.20
	2	1897	206	M.	(a)	(a)	(a)	2.19
	2	1898	215	M.	(a)	(a)	(a)	2.22
	2	1900	253	M.	(a)	(a)	(a)	2.28
	7	1894	443	M.	(a)	(a)	(a)	2.40
	7	1895	434	M.	(a)	(a)	(a)	2.41
	7	1896	477	M.	(a)	(a)	(a)	2.42
	7	1897	479	M.	(a)	(a)	(a)	2.41
	7	1898	463	M.	(a)	(a)	(a)	2.40
	7	1899	564	M.	(a)	(a)	(a)	2.37
	7	1900	(a)	(a)	(a)	(a)	(a)	(a)
Section foremen	1	1890	365	M.	(a)	(a)	(a)	1.76½
	1	1891	370	M.	(a)	(a)	(a)	1.53½
	1	1892	358	M.	(a)	(a)	(a)	1.53
	1	1893	315	M.	(a)	(a)	(a)	1.49
	1	1894	354	M.	(a)	(a)	(a)	1.50
	1	1895	346	M.	(a)	(a)	(a)	1.56½
	1	1896	354	M.	(a)	(a)	(a)	1.60
	1	1897	359	M.	(a)	(a)	(a)	1.60½
	1	1898	353	M.	(a)	(a)	(a)	1.70
	1	1899	364	M.	(a)	(a)	(a)	1.63½
	2	1890	166	M.	(a)	(a)	(a)	1.82
	2	1891	172	M.	(a)	(a)	(a)	1.77
	2	1892	168	M.	(a)	(a)	(a)	1.78
	2	1893	167	M.	(a)	(a)	(a)	1.79
	2	1896	162	M.	(a)	(a)	(a)	1.78
	2	1896	170	M.	(a)	(a)	(a)	1.79
	2	1898	148	M.	(a)	(a)	(a)	1.78
	2	1899	158	M.	(a)	(a)	(a)	1.80
	2	1900	150	M.	(a)	(a)	(a)	1.82
	3	1894	199	M.	60	\$1.46	\$2.87½	1.83
	3	1895	218	M.	60	1.46	2.87½	1.81
	3	1896	216	M.	60	1.46	2.87½	1.82½
	3	1897	218	M.	60	1.46	2.87½	1.81
	3	1898	207	M.	60	1.46	2.87½	1.89½
	3	1899	221	M.	60	1.46	2.87½	1.82
	3	1900	227	M.	60	1.46	2.87½	1.86
	5	1894	236	M.	60	1.35	2.87½	1.76
	5	1895	224	M.	60	1.35	2.87½	1.81½
	5	1897	227	M.	60	1.35	2.87½	1.80
	5	1898	216	M.	60	1.35	2.87½	1.77½
	5	1899	210	M.	60	1.25	2.87½	1.80
Section men	3	1894	1,239	M.	60	1.00	1.60	1.26
	3	1898	1,106	M.	60	1.00	1.60	1.24
	3	1899	1,218	M.	60	1.10	1.60	1.22½
	3	1900	1,311	M.	60	1.10	1.60	1.26½
	5	1894	1,501	M.	60	1.00	1.50	1.17
	5	1895	1,640	M.	60	1.00	1.50	1.20½
	5	1896	1,696	M.	60	1.20	2.00	1.20½
	5	1898	970	M.	60	1.00	1.30	1.20
	5	1899	1,052	M.	60	1.00	1.20	1.19½
	5	1900	1,475	M.	60	1.00	1.25	1.20
Shopmen, other than carpenters and machinists	1	1890	2,955	M.	(a)	(a)	(a)	1.50
	1	1891	2,706	M.	(a)	(a)	(a)	1.35
	1	1892	3,022	M.	(a)	(a)	(a)	1.48

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

STEAM RAILROADS—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Shopmen, other than carpenters and machinists—Concluded ..	1	1893	2,764	M.	(a)	(a)	(a)	\$1.43½
	1	1894	2,609	M.	(a)	(a)	(a)	1.38½
	1	1895	3,012	M.	(a)	(a)	(a)	1.58
	1	1896	3,538	M.	(a)	(a)	(a)	1.49½
	1	1897	3,805	M.	(a)	(a)	(a)	1.74
	1	1898	3,496	M.	(a)	(a)	(a)	1.53½
	1	1899	3,561	M.	(a)	(a)	(a)	1.58
	2	1890	726	M.	(a)	(a)	(a)	1.70
	2	1891	804	M.	(a)	(a)	(a)	1.68
	2	1892	796	M.	(a)	(a)	(a)	1.67
	2	1893	696	M.	(a)	(a)	(a)	1.71
	2	1894	640	M.	(a)	(a)	(a)	1.70
	2	1895	648	M.	(a)	(a)	(a)	1.69
	2	1896	619	M.	(a)	(a)	(a)	1.61
	2	1898	560	M.	(a)	(a)	(a)	1.66
	2	1899	981	M.	(a)	(a)	(a)	1.73
	2	1900	868	M.	(a)	(a)	(a)	1.65
	5	1894	31	M.	84	\$1.20	\$1.81	1.56½
	5	1895	27	M.	84	1.20	1.64½	1.49
Signalmen	5	1896	28	M.	84	1.20	1.64½	1.50
	5	1897	38	M.	84	1.25	1.97½	1.56½
	5	1899	22	M.	84	1.25	1.64½	1.47½
	5	1900	31	M.	84	1.25	1.64½	1.59
	1	1890	428	M.	(a)	(a)	(a)	1.86½
Station agents	1	1891	414	M.	(a)	(a)	(a)	1.79½
	1	1892	421	M.	(a)	(a)	(a)	1.79
	1	1893	383	M.	(a)	(a)	(a)	1.76
	1	1894	432	M.	(a)	(a)	(a)	1.83½
	1	1895	436	M.	(a)	(a)	(a)	1.84
	1	1896	431	M.	(a)	(a)	(a)	1.73
	1	1897	481	M.	(a)	(a)	(a)	1.77½
	1	1898	461	M.	(a)	(a)	(a)	1.75
	1	1899	450	M.	(a)	(a)	(a)	1.72½
Station men, other than station agents	1	1890	1,374	M.	(a)	(a)	(a)	1.58½
	1	1891	1,586	M.	(a)	(a)	(a)	1.53½
	1	1892	1,685	M.	(a)	(a)	(a)	1.55
	1	1893	1,452	M.	(a)	(a)	(a)	1.53½
	1	1894	1,480	M.	(a)	(a)	(a)	1.50½
	1	1895	1,279	M.	(a)	(a)	(a)	1.39½
	1	1896	1,340	M.	(a)	(a)	(a)	1.27½
	1	1897	1,267	M.	(a)	(a)	(a)	1.45
	1	1898	1,367	M.	(a)	(a)	(a)	1.43½
	1	1899	1,301	M.	(a)	(a)	(a)	1.48½
	3	1894	149	M.	84	.76½	2.13½	1.44
Switchmen	3	1895	164	M.	84	.76½	2.13½	1.51½
	3	1896	173	M.	84	.76½	2.13½	1.44
	3	1897	146	M.	84	.76½	2.13½	1.46
	3	1898	141	M.	84	.85	2.13½	1.54½
	3	1899	144	M.	84	.85	2.13½	1.56½
	3	1900	154	M.	84	.85	2.13½	1.59½
	5	1894	216	M.	(b)	.90	2.25	1.52½
	5	1896	210	M.	(b)	.90	2.10½	1.56
	5	1896	215	M.	(b)	.90	2.10½	1.56½
	5	1897	188	M.	(b)	.90	2.10½	1.50
	5	1898	177	M.	(b)	.90	2.10½	1.46
	5	1899	194	M.	(b)	.90	2.10½	1.53
	5	1900	172	M.	(b)	.90	2.10½	1.55
Switchmen and tower men.....	6	1891	133	M.	(a)	1.48	2.68	1.95½
	6	1899	121	M.	(a)	1.50	2.68	1.90½
	6	1900	107	M.	(a)	1.50	2.68	1.94½
Switchmen, flagmen, and watchmen	1	1890	1,472	M.	(a)	(a)	(a)	1.69½
	1	1891	1,637	M.	(a)	(a)	(a)	1.76½
	1	1892	1,687	M.	(a)	(a)	(a)	1.74
	1	1893	1,456	M.	(a)	(a)	(a)	1.85½
	1	1894	1,417	M.	(a)	(a)	(a)	1.84½

a Not reported.

b 70 to 84 hours per week.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

STEAM RAILROADS—Concluded.

Occupation and location.	Estab-lish-ment num-ber.	First year and years of change.	Num-ber of em-ploy-ees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Switchmen, flagmen, and watchmen—Concluded	1	1895	1,437	M.	(a)	(a)	(a)	\$1.90
	1	1896	1,557	M.	(a)	(a)	(a)	1.87
	1	1897	1,559	M.	(a)	(a)	(a)	1.82½
	1	1898	1,624	M.	(a)	(a)	(a)	1.87
	1	1899	1,440	M.	(a)	(a)	(a)	1.79
	2	1890	360	M.	(a)	(a)	(a)	1.42
	2	1891	399	M.	(a)	(a)	(a)	1.43
	2	1892	423	M.	(a)	(a)	(a)	1.40
	2	1893	464	M.	(a)	(a)	(a)	1.43
	2	1894	432	M.	(a)	(a)	(a)	1.47
	2	1895	462	M.	(a)	(a)	(a)	1.44
	2	1897	450	M.	(a)	(a)	(a)	1.43
	2	1898	423	M.	(a)	(a)	(a)	1.45
	2	1899	490	M.	(a)	(a)	(a)	1.42
	2	1900	(a)	(a)	(a)	(a)	(a)	(a)
Telegraph operators and dis-patchers	1	1890	577	M.	(a)	(a)	(a)	1.60
	1	1891	566	M.	(a)	(a)	(a)	1.73½
	1	1892	709	M.	(a)	(a)	(a)	1.69½
	1	1893	764	M.	(a)	(a)	(a)	1.68
	1	1894	792	M.	(a)	(a)	(a)	1.78½
	1	1895	779	M.	(a)	(a)	(a)	1.73
	1	1896	777	M.	(a)	(a)	(a)	1.61
	1	1897	794	M.	(a)	(a)	(a)	1.76½
	1	1898	792	M.	(a)	(a)	(a)	1.76
	2	1890	1,547	M.	(a)	(a)	(a)	1.21
Track laborers	2	1892	1,232	M.	(a)	(a)	(a)	1.20
	2	1893	1,246	M.	(a)	(a)	(a)	1.21
	2	1896	1,068	M.	(a)	(a)	(a)	1.22
	2	1897	966	M.	(a)	(a)	(a)	1.21
	2	1900	1,023	M.	(a)	(a)	(a)	1.20
Track men, other than section foremen	1	1890	2,196	M.	(a)	(a)	(a)	1.19½
	1	1891	2,471	M.	(a)	(a)	(a)	1.11
	1	1892	2,281	M.	(a)	(a)	(a)	1.07
	1	1893	1,980	M.	(a)	(a)	(a)	1.04
	1	1894	2,006	M.	(a)	(a)	(a)	1.05
	1	1895	2,052	M.	(a)	(a)	(a)	1.14
	1	1896	2,382	M.	(a)	(a)	(a)	1.25½
	1	1897	2,556	M.	(a)	(a)	(a)	1.14½
	1	1898	2,781	M.	(a)	(a)	(a)	1.14
	1	1899	2,607	M.	(a)	(a)	(a)	1.13½
Train men, other than con-ductors	1	1890	2,030	M.	(a)	(a)	(a)	1.72½
	1	1891	2,170	M.	(a)	(a)	(a)	1.74½
	1	1892	2,337	M.	(a)	(a)	(a)	1.75½
	1	1893	2,025	M.	(a)	(a)	(a)	1.77
	1	1894	1,892	M.	(a)	(a)	(a)	1.80
	1	1895	1,747	M.	(a)	(a)	(a)	1.70½
	1	1896	1,681	M.	(a)	(a)	(a)	1.75
	1	1897	1,665	M.	(a)	(a)	(a)	1.87
	1	1898	1,783	M.	(a)	(a)	(a)	1.88½
	1	1899	1,731	M.	(a)	(a)	(a)	1.85½
	2	1890	1,235	M.	(a)	(a)	(a)	1.92
	2	1892	1,315	M.	(a)	(a)	(a)	1.95
	2	1893	1,403	M.	(a)	(a)	(a)	1.96
	2	1894	1,096	M.	(a)	(a)	(a)	2.04
	2	1896	854	M.	(a)	(a)	(a)	2.06
	2	1897	943	M.	(a)	(a)	(a)	2.06
	2	1900	(a)	M.	(a)	(a)	(a)	(a)

a Not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

STONE QUARRYING AND CUTTING.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Granite cutters:								
Buffalo, N. Y.	2	1891	44	M.	48	\$3.04	\$3.04	\$3.04
New York, N. Y.	3	1891	50	M.	44	4.75	4.75	4.75
Philadelphia, Pa.	3	1893	42	M.	44	4.00	4.00	4.00
Quincy, Mass.	4	1891	140	M.	54	8.25	3.25	3.25
Quincy, Mass.	4	1899	180	M.	54	3.00	3.00	3.00
Quincy, Mass.	4	1900	120	M.	48	3.00	3.00	3.00
Quincy, Mass.	5	1891	45	M.	54	2.79	3.24	3.01
Quincy, Mass.	5	1892	25	M.	54	2.52	3.15	2.94
Quincy, Mass.	5	1894	12	M.	54	2.43	3.00	2.59
Quincy, Mass.	5	1896	20	M.	54	2.25	2.70	2.62
Quincy, Mass.	5	1896	26	M.	54	2.25	2.83	2.69
Quincy, Mass.	5	1897	28	M.	54	2.52	2.83	2.70
Quincy, Mass.	5	1898	25	M.	54	2.25	2.83	2.57
Quincy, Mass.	5	1899	50	M.	54	2.25	3.00	2.56
Quincy, Mass.	5	1900	54	M.	54	2.25	2.83	2.57
Worcester, Mass.	7	1891	67	M.	53	3.00	3.00	3.00
Worcester, Mass.	7	1893	79	M.	56	1.86	3.17	3.03
Worcester, Mass.	7	1894	27	M.	53	1.98	2.70	2.51
Worcester, Mass.	7	1896	91	M.	53	2.70	2.70	2.70
Worcester, Mass.	7	1897	105	M.	53	2.60	2.70	2.68
Worcester, Mass.	7	1898	208	M.	53	1.98	2.70	2.67
Worcester, Mass.	7	1899	92	M.	53	1.98	2.67	2.66
Worcester, Mass.	7	1900	54	M.	48	1.92	2.72	2.62
Quarrymen:								
Quincy, Mass.	5	1891	63	M.	54	1.71	2.11	1.94
Quincy, Mass.	5	1892	59	M.	54	1.80	2.11	1.91
Quincy, Mass.	5	1899	38	M.	54	1.80	2.25	1.98
Rocklin, Cal.	6	1890	16	M.	54	2.50	2.50	2.50
Rocklin, Cal.	6	1893	20	M.	48	2.00	2.00	2.00
Rocklin, Cal.	6	1899	10	M.	48	2.25	2.25	2.25
Rocklin, Cal.	6	1900	12	M.	48	2.25	2.50	2.33
Stonecutters:								
Birmingham, Ala.	1	1890	15	M.	54	3.60	3.60	3.60
Birmingham, Ala.	1	1893	12	M.	54	2.70	2.70	2.70
Birmingham, Ala.	1	1896	17	M.	60	3.00	3.00	3.00
Birmingham, Ala.	1	1899	20	M.	54	3.15	3.15	3.15
Birmingham, Ala.	1	1900	20	M.	54	3.60	3.60	3.60
Buffalo, N. Y.	2	1891	30	M.	48	3.04	3.52	3.23
Philadelphia, Pa.	4	1891	145	M.	54	3.50	3.50	3.50
Philadelphia, Pa.	4	1896	160	M.	50	3.50	3.50	3.50
Rocklin, Cal.	6	1890	14	M.	54	3.00	3.00	3.00
Rocklin, Cal.	6	1893	16	M.	48	2.75	2.75	2.75
Rocklin, Cal.	6	1900	15	M.	48	3.60	3.60	3.60

STREET RAILWAYS.

Blacksmiths and machinists:								
Cleveland, Ohio.	6	1893	40	M.	a 10	\$2.00	\$2.00	\$2.00
Cleveland, Ohio.	6	1897	60	M.	a 10	2.25	2.25	2.25
Carpenters:								
Cleveland, Ohio.	6	1893	8	M.	a 10	2.00	2.00	2.00
Cleveland, Ohio.	6	1897	15	M.	a 10	2.25	2.25	2.25
Car repairers:								
Buffalo, N. Y.	4	1891	30	M.	a 10	1.50	1.50	1.50
Buffalo, N. Y.	4	1892	40	M.	a 10	1.60	2.00	1.80
Buffalo, N. Y.	4	1893	50	M.	a 10	1.75	1.75	1.75
Conductors:								
Atlanta, Ga.	1	1890	113	M.	72	1.80	1.80	1.80
Atlanta, Ga.	1	1893	125	M.	72	1.44	1.44	1.44
Atlanta, Ga.	1	1899	174	M.	72	1.56	1.80	1.71
Augusta, Ga.	2	1890	26	M.	84	1.20	1.56	1.40
Augusta, Ga.	2	1893	28	M.	84	1.20	1.44	1.33
Augusta, Ga.	2	1899	27	M.	84	1.20	1.66	1.41

a Per day; days per week not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Continued.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

STREET RAILWAYS—Continued.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Conductors—Concluded.								
Birmingham, Ala.	3	1890	75	M.	70	\$1.50	\$2.00	\$1.55 ^a
	3	1892	75	M.	70	1.50	1.75	1.52 ^a
Buffalo, N. Y.	4	1891	402	M.	a 11	1.65	1.65	1.65
	4	1892	415	M.	a 11	1.65	1.98	1.90
	4	1896	436	M.	a 9	1.35	1.62	1.55
	4	1896	450	M.	a 9 ^a	1.46 ^a	1.75 ^a	1.68
	4	1897	470	M.	a 9	1.35	1.62	1.55
	4	1898	450	M.	a 9 ^a	1.46 ^a	1.75 ^a	1.68
Charlotte, N. C.	5	1891	8	M.	96	1.00	1.00	1.00
	5	1896	9	M.	96	1.15	1.15	1.15
	5	1899	12	M.	90	1.15	1.20	1.16 ^a
	5	1900	18	M.	72	1.15	1.30	1.20
Cleveland, Ohio.	6	1893	175	M.	a 10	1.75	1.75	1.75
	6	1894	175	M.	a 10	2.00	2.00	2.00
	6	1896	198	M.	a 10	1.80	1.80	1.80
	6	1897	204	M.	a 10	2.00	2.00	2.00
Electricians:								
Buffalo, N. Y.	4	1891	6	M.	a 12	2.50	2.50	2.50
	4	1896	15	M.	a 10	2.50	2.50	2.50
Engineers, stationary:								
Buffalo, N. Y.	4	1891	3	M.	a 12	2.25	2.25	2.25
	4	1896	6	M.	a 8	2.25	2.25	2.25
	4	1896	6	M.	a 8	2.50	2.50	2.50
Cleveland, Ohio.	6	1893	4	M.	a 10	2.50	2.50	2.50
Firemen, stationary:								
Cleveland, Ohio.	6	1893	5	M.	a 10	1.75	1.75	1.75
	6	1896	9	M.	a 10	1.65	1.65	1.65
Laborers:								
Buffalo, N. Y.	4	1891	165	M.	a 10	1.50	1.50	1.50
Cleveland, Ohio.	6	1893	100	M.	a 10	1.45	1.45	1.45
	6	1896	125	M.	a 10	1.35	1.35	1.35
	6	1897	150	M.	a 10	1.50	1.50	1.50
Linemen:								
Buffalo, N. Y.	4	1891	10	M.	a 10	2.50	2.50	2.50
Cleveland, Ohio.	6	1893	30	M.	a 10	1.50	1.50	1.50
Motormen:								
Atlanta, Ga.	1	1890	162	M.	72	1.80	1.80	1.80
	1	1893	176	M.	72	1.44	1.44	1.44
	1	1899	194	M.	72	1.56	1.80	1.71
Augusta, Ga.	2	1890	27	M.	84	1.20	1.68	1.48 ^a
	2	1893	27	M.	84	1.20	1.44	1.34 ^a
	2	1899	29	M.	84	1.20	1.68	1.48 ^a
Birmingham, Ala.	3	1890	75	M.	70	1.30	1.30	1.30
	3	1899	150	M.	70	1.30	1.40	1.35
Buffalo, N. Y.	4	1891	402	M.	a 11	1.54	1.54	1.54
	4	1892	415	M.	a 11	1.65	1.98	1.90
	4	1896	436	M.	a 9	1.35	1.62	1.55
	4	1896	450	M.	a 9 ^a	1.46 ^a	1.75 ^a	1.68
	4	1897	470	M.	a 9	1.35	1.62	1.55
	4	1898	450	M.	a 9 ^a	1.46 ^a	1.75 ^a	1.68
Charlotte, N. C.	5	1891	8	M.	96	1.00	1.00	1.00
	5	1896	9	M.	96	1.15	1.15	1.15
	5	1899	12	M.	90	1.15	1.20	1.16 ^a
	5	1900	18	M.	72	1.15	1.30	1.20
Cleveland, Ohio.	6	1893	170	M.	a 10	1.75	1.75	1.75
	6	1894	170	M.	a 10	2.00	2.00	2.00
	6	1896	195	M.	a 10	1.80	1.80	1.80
	6	1897	201	M.	a 10	2.00	2.00	2.00
Painters:								
Cleveland, Ohio.	6	1893	8	M.	a 10	2.00	2.00	2.00
	6	1897	12	M.	a 10	2.25	2.25	2.25
Starters:								
Buffalo, N. Y.	4	1891	3	M.	a 12	1.80	1.80	1.80
	4	1892	4	M.	a 9 ^a	2.14	2.14	2.14
	4	1893	3	M.	a 10	1.60	1.60	1.60
	4	1896	3	M.	a 10	1.80	1.80	1.80

^a Per day; days per week not reported.

TABLE I.—RATES OF WAGES IN VARIOUS OCCUPATIONS—Concluded.

[Rates of wages are given for the first year for which they were obtainable and for each succeeding year in which changes in rates occurred up to April, 1900. For example, when under any occupation only one date is shown, it is to be understood that there was no change in number of employees or rates of wages up to April, 1900. In occupations where employees are paid by the piece average daily earnings have been computed wherever possible.]

STREET RAILWAYS—Concluded.

Occupation and location.	Establishment number.	First year and years of change.	Number of employees.	Sex.	Hours per week.	Rates of wages per day.		
						Lowest.	Highest.	Average.
Switchmen:								
Buffalo, N. Y.	4	1891	4	M.	a 12	\$1.80	\$1.80	\$1.80
	4	1892	4	M.	a 11	1.65	1.65	1.65
	4	1893	3	M.	a 12	1.80	1.80	1.80
	4	1894	3	M.	a 10	1.50	1.50	1.50
Watchmen:								
Buffalo, N. Y.	4	1891	8	M.	a 12	1.80	1.80	1.80
	4	1892	8	M.	a 9½	1.86	1.86	1.86
	4	1893	8	M.	a 10	1.50	1.50	1.50

WOOLEN GOODS.

Dyers:								
Passaic, N. J.	1	1891	9	M.	60	\$1.04	\$1.41½	\$1.09½
	1	1899	11	M.	60	1.08½	1.45	1.12½
	1	1900	11	M.	60	1.25	1.66½	1.29½
Finishers:								
Passaic, N. J.	1	1891	24	M.	60	.90	1.04	.97½
	1	1899	30	M.	60	.94	1.08½	1.00
	1	1900	30	M.	60	1.08½	1.25	1.16½
Rag sorters and cleaners:								
Passaic, N. J.	1	1891	14	M.	60	.93½	1.04½	1.01
	1	1899	18	M.	60	.98	1.10	1.06
	1	1900	18	M.	60	1.12½	1.25	1.20
Spinners:								
Passaic, N. J.	1	1891	16	M.	60	.97½	1.70	1.25½
	1	1899	20	M.	60	1.06	1.85	1.37½
	1	1900	21	M.	60	1.16½	2.06½	1.51
Weavers:								
Passaic, N. J.	1	1891	64	(b)	60	1.05	1.66½	1.35
	1	1899	80	(b)	60	1.08½	1.74	1.39
	1	1900	79	(b)	60	1.25	2.00	1.60

MISCELLANEOUS.

Organ makers:								
Worcester, Mass.	2	1891	40	(b)	59	\$1.25	\$4.00	\$2.50
Sheet-metal workers:								
Philadelphia, Pa.	1	1891	40	M.	54	2.50	2.50	2.50
Wireworkers:								
Worcester, Mass.	3	1896	154	M.	60	.66½	3.33½	1.45
	3	1897	158	M.	60	.83½	3.33½	1.48
	3	1898	150	M.	60	.60	3.33½	1.50
	3	1899	160	M.	60	.50	3.50	1.46
	3	1900	164	M.	60	.50	3.50	1.53

a Per day; days per week not reported.

b Not reported.

TABLE II.—MONTHLY PRICES OF PIG IRON, STEEL BILLETS, RAILS, ETC., 1889 TO 1899.

[The prices of pig iron and steel rails are from the Iron Age, other prices from the Report of the Industrial Commission. The combinations controlling the most of these products were organized in December, 1898, and the first half of 1899.]

Year and month.	Pig iron.						Steel billets, rails, etc.			
	Foundry No. 2, local, at Chicago, per 2,240 lbs.	Charcoal, Lake Superior, at Chicago, per 2,240 lbs.	Gray forge, southern, at Cincinnati, per 2,240 lbs.	Gray forge at Philadelphia, per 2,240 lbs.	Bessemer at Pittsburgh, per 2,240 lbs.	Gray forge, lake ore, at Pittsburgh, per 2,240 lbs.	Billets at Pittsburgh, per 2,240 lbs.	Billets and slabs, per 2,240 lbs.	Slabs, 4 in. by 8 in., at Pittsburgh, per 2,240 lbs.	Rails at mills in Pennsylvania, per 2,240 lbs.
1889.										
Jan.	\$16.88	\$20.00	\$13.50	\$15.50	\$16.75	\$15.50	\$28.12	\$27.65	\$30.00	\$27.50
Feb.	15.50	19.50	12.75	15.25	16.55	14.75	27.81	28.13	29.50	27.50
Mar.	15.75	19.50	13.12	15.25	16.50	15.00	27.25	27.32	29.25	27.50
Apr.	16.87	19.25	13.25	15.00	16.25	14.25	27.00	27.89	28.75	27.50
May	15.50	18.75	13.00	14.75	16.00	14.00	26.90	26.41	28.75	27.00
June	15.25	18.50	12.88	14.90	16.00	14.00	26.62	25.95	28.50	27.50
July	15.50	18.50	13.50	15.00	16.35	14.15	27.12	26.16	28.75	28.00
Aug.	15.50	18.50	13.37	15.25	17.50	14.90	28.37	26.32	30.00	28.00
Sept.	15.50	18.75	13.50	15.25	18.00	15.50	29.40	26.27	30.75	29.50
Oct.	16.38	19.50	14.38	15.60	20.75	16.60	33.70	26.57	33.50	32.00
Nov.	16.62	20.00	15.12	16.75	21.75	17.25	34.00	26.88	36.00	34.00
Dec.	18.00	22.00	17.25	17.25	23.75	18.25	35.50	27.92	37.00	35.00
1890.										
Jan.	19.75	23.00	17.25	17.90	23.60	18.00	36.65	32.01	38.75	35.25
Feb.	18.50	23.00	17.25	17.38	22.55	18.00	35.25	32.36	36.25	35.00
Mar.	17.25	22.50	14.25	17.00	20.25	17.00	31.87	33.10	31.50	34.00
Apr.	16.75	21.50	13.38	16.10	17.85	15.35	28.37	31.01	29.75	33.50
May	16.25	21.00	13.37	15.65	17.55	15.25	27.56	30.04	29.50	31.25
June	16.25	20.50	13.88	15.50	19.00	15.25	30.25	28.84	32.65	31.50
July	16.50	20.00	13.37	15.25	18.62	15.25	30.70	26.00	32.50	31.50
Aug.	16.50	20.25	13.62	15.10	18.10	15.25	30.25	30.36	32.00	31.25
Sept.	16.50	20.25	13.38	15.00	18.00	15.25	30.12	30.00	31.75	30.50
Oct.	16.00	19.75	13.37	15.00	17.35	15.00	28.90	29.68	29.50	30.00
Nov.	15.62	19.25	13.38	15.00	17.00	15.00	27.37	28.95	29.00	29.00
Dec.	15.25	18.75	12.63	15.00	16.60	14.75	26.25	28.10	27.75	28.50
1891.										
Jan.	14.75	18.50	12.62	14.50	15.95	14.25	25.60	27.51	27.75	29.00
Feb.	15.25	18.25	12.88	14.50	16.25	14.50	26.00	26.00	27.75	30.00
Mar.	15.25	18.00	13.50	14.75	16.50	15.00	26.25	25.95	27.50	30.00
Apr.	15.62	18.00	12.88	14.75	16.10	14.12	25.35	25.42	26.50	30.00
May	15.50	17.00	12.87	14.75	16.50	14.00	25.50	26.11	27.25	30.00
June	15.25	16.75	12.88	14.75	16.25	14.00	25.25	(a)	27.25	30.00
July	15.13	17.00	12.87	14.60	16.25	14.00	25.50	25.47	27.00	30.00
Aug.	15.12	17.00	12.63	14.50	16.00	14.00	25.31	25.75	27.00	30.00
Sept.	15.13	17.25	12.62	14.35	15.60	14.00	25.00	25.71	26.50	30.00
Oct.	15.12	17.00	12.88	14.35	15.60	13.85	24.90	25.56	26.25	30.00
Nov.	14.88	17.00	12.87	14.25	15.15	13.50	24.16	25.24	25.75	30.00
Dec.	14.75	16.25	12.38	14.25	15.35	13.50	24.20	24.49	25.75	30.00
1892.										
Jan.	14.50	17.25	12.25	14.25	15.65	13.50	25.00	24.50	26.50	30.00
Feb.	14.37	17.00	12.25	14.25	15.25	13.25	24.36	24.62	25.86	30.00
Mar.	14.00	17.00	11.95	14.00	14.75	13.00	23.00	24.03	24.50	30.00
Apr.	14.00	16.75	11.75	14.00	14.50	13.00	22.81	24.04	24.31	30.00
May	14.00	16.50	11.75	13.75	14.36	12.94	22.41	23.43	23.91	30.00
June	14.00	16.50	11.65	13.50	14.10	12.75	22.97	22.94	24.47	30.00
July	14.00	16.50	11.37	13.00	14.00	12.75	23.50	20.66	25.00	30.00
Aug.	13.75	16.50	11.19	13.00	14.00	12.50	23.81	23.53	25.31	30.00
Sept.	13.50	16.50	11.00	13.00	13.96	12.50	23.65	23.78	25.15	30.00
Oct.	13.50	16.75	11.31	13.25	13.90	12.50	23.53	23.70	25.03	30.00
Nov.	13.50	16.50	11.71	13.25	14.03	12.50	24.94	23.67	26.44	30.00
Dec.	13.50	16.50	11.50	13.25	13.90	12.50	22.40	23.43	23.90	30.00
1893.										
Jan.	13.37	16.50	11.50	13.10	13.59	12.80	21.56	22.71	23.06	29.00
Feb.	12.81	16.50	11.12	13.00	13.51	12.25	21.62	22.32	23.12	29.00
Mar.	13.00	16.50	10.90	13.00	13.75	12.25	22.60	22.70	24.10	29.00
Apr.	13.00	16.50	10.75	13.00	13.86	12.25	22.44	22.53	23.94	29.00
May	12.96	16.50	10.69	13.00	13.51	12.25	21.69	22.22	23.19	29.00
June	13.00	16.00	10.50	13.00	13.50	12.25	21.70	22.27	23.20	29.00
July	12.79	16.00	10.44	13.00	13.21	12.00	21.06	21.80	22.56	29.00
Aug.	12.75	16.00	10.15	12.94	13.08	12.00	20.45	21.13	21.95	29.00
Sept.	12.75	16.00	9.94	12.58	12.19	11.69	19.31	20.00	20.81	29.00
Oct.	12.75	16.00	9.75	12.25	11.60	10.87	18.06	19.47	19.56	27.50
Nov.	12.75	15.75	9.80	12.00	11.46	10.66	17.37	19.39	18.87	25.00
Dec.	11.69	15.50	9.94	11.94	11.17	10.44	16.69	18.65	18.19	24.00
1894.										
Jan.	12.50	15.50	9.75	11.56	10.90	9.88	16.12	18.66	17.62	24.00
Feb.	11.87	15.40	9.44	11.37	10.75	9.72	15.75	17.59	17.25	24.00
Mar.	11.80	15.25	9.00	11.00	10.56	9.61	15.56	16.68	17.05	24.00
Apr.	10.50	15.25	8.50	10.75	10.49	9.47	15.69	16.20	17.19	24.00
May	10.50	15.25	8.50	10.50	12.44	9.55	18.00	16.00	19.50	24.00
June	10.50	15.25	8.62	10.56	13.15	9.78	18.12	16.91	19.62	24.00

a Not reported.

TABLE II.—MONTHLY PRICES OF PIG IRON, STEEL BILLETS, RAILS, ETC.,
1889 TO 1899—Concluded.

Year and month.	Pig iron.						Steel billets, rails, etc.			
	Foundry No. 2, local, at Chicago, per 2,240 lbs.	Char-coal, Lake Superior, at Chicago, per 2,240 lbs.	Gray forge, southern, at Cincinnati, per 2,240 lbs.	Gray forge at Philadelphia, per 2,240 lbs.	Bessemer at Pittsburgh, per 2,240 lbs.	Gray forge, lake ore, at Pittsburgh, per 2,240 lbs.	Billets at Pittsburgh, per 2,240 lbs.	Billets and slabs, per 2,240 lbs.	Slabs, 8 in. by 8 in., at Pittsburgh, per 2,240 lbs.	Rails at mills in Pennsylvania, per 2,240 lbs.
1894.										
July.....	\$10.12	\$15.00	\$8.75	\$10.50	\$12.60	\$9.94	\$18.00	\$16.84	\$19.50	\$24.00
Aug.....	10.00	14.50	8.80	10.50	12.12	10.00	17.15	15.93	18.65	24.00
Sept.....	10.00	14.25	8.75	10.50	11.53	10.02	17.19	15.98	18.19	24.00
Oct.....	10.00	14.00	8.75	10.50	11.02	9.84	16.00	15.89	17.50	24.00
Nov.....	9.70	13.50	8.50	10.50	10.66	9.72	15.57	15.60	17.07	24.00
Dec.....	9.75	13.00	8.37	10.50	10.31	9.47	15.12	15.60	16.62	24.00
1895.										
Jan.....	9.75	13.00	8.25	10.50	10.06	9.17	14.90	14.86	16.40	22.00
Feb.....	9.75	13.00	8.25	10.50	10.15	9.09	14.95	14.85	16.45	22.00
Mar.....	9.81	13.00	8.25	10.50	10.23	8.99	14.84	14.88	16.24	22.00
Apr.....	10.25	12.75	8.25	10.50	10.69	9.27	15.44	14.76	16.94	22.00
May.....	10.25	13.00	8.25	10.45	11.15	9.81	16.80	15.02	17.80	22.00
June.....	10.88	13.00	9.88	11.12	12.39	10.55	18.63	15.62	20.10	22.00
July.....	12.13	13.50	11.38	12.05	14.14	11.45	20.75	17.18	22.25	24.00
Aug.....	13.20	13.50	11.50	12.81	15.02	11.97	21.75	18.24	23.25	24.00
Sept.....	13.63	14.50	12.50	12.70	17.19	13.37	24.00	18.73	25.50	28.00
Oct.....	14.00	15.50	12.50	12.87	15.77	13.12	21.90	20.24	23.40	28.00
Nov.....	14.00	15.50	12.50	12.44	13.94	12.65	19.13	20.05	20.63	28.00
Dec.....	14.00	16.00	12.50	11.90	11.87	11.85	16.97	19.73	18.47	28.00
1896.										
Jan.....	12.55	14.50	10.55	11.55	11.81	10.90	16.80	21.19	18.30	28.00
Feb.....	12.50	14.00	9.75	11.50	12.95	11.00	17.38	19.19	18.88	28.00
Mar.....	12.00	13.50	9.58	11.80	12.25	10.92	17.09	17.62	18.59	28.00
Apr.....	12.00	13.50	9.35	11.19	13.82	10.85	19.53	17.65	21.00	28.00
May.....	11.69	13.50	9.50	11.00	12.83	10.79	19.50	19.08	21.00	28.00
June.....	11.50	13.50	9.44	11.00	12.47	10.82	19.12	20.11	20.62	28.00
July.....	11.25	13.50	9.00	10.90	12.12	10.87	18.85	19.00	20.85	28.00
Aug.....	11.18	13.50	8.75	10.75	10.91	9.83	18.75	(a)	20.25	28.00
Sept.....	10.75	13.50	9.00	10.75	11.31	9.50	19.75	20.17	21.25	28.00
Oct.....	10.88	13.50	9.20	10.81	11.71	9.87	19.75	19.45	21.25	28.00
Nov.....	11.19	13.50	9.94	11.12	12.46	10.84	20.00	19.23	21.50	28.00
Dec.....	11.25	13.50	9.60	11.25	11.54	9.94	17.50	16.90	19.00	28.00
1897.										
Jan.....	11.02	13.50	9.31	11.06	10.77	9.66	15.42	15.14	16.92	25.00
Feb.....	11.00	13.50	9.00	11.00	10.72	9.54	15.25	15.41	16.75	20.00
Mar.....	10.88	13.50	8.94	10.65	10.57	9.41	15.44	15.61	16.94	18.00
Apr.....	10.75	13.50	8.40	10.50	9.91	8.85	14.60	15.61	16.10	18.00
May.....	10.88	13.00	8.19	10.25	9.52	8.70	13.82	15.65	15.82	15.00
June.....	10.25	13.00	8.25	10.10	9.74	8.86	14.06	15.46	15.56	18.00
July.....	10.25	13.00	8.45	10.19	9.89	8.86	14.00	(a)	15.50	18.00
Aug.....	10.25	13.00	8.45	10.05	9.54	8.29	14.00	(a)	15.50	18.00
Sept.....	10.40	12.50	8.80	10.50	10.04	8.85	15.60	14.71	17.10	18.00
Oct.....	11.00	12.50	9.00	10.50	10.70	9.75	16.44	15.07	17.94	18.00
Nov.....	11.00	12.50	9.00	10.50	10.52	9.56	15.57	14.51	17.07	18.00
Dec.....	11.00	12.50	9.00	10.50	10.09	9.00	15.00	13.82	16.50	18.00
1898.										
Jan.....	11.00	12.50	9.00	10.37	10.00	9.00	14.93	13.93	16.43	18.00
Feb.....	10.93	11.50	8.75	10.25	10.06	8.97	15.06	14.02	16.56	18.00
Mar.....	10.75	11.50	8.55	10.25	10.87	9.06	15.25	14.00	16.75	18.00
Apr.....	10.91	11.50	8.50	10.25	10.35	9.22	15.06	14.04	16.56	18.00
May.....	11.00	11.50	8.62	10.25	10.41	9.12	14.86	14.16	16.85	18.00
June.....	11.00	11.50	8.55	10.25	10.42	9.14	14.65	15.08	16.15	17.50
July.....	11.00	11.50	8.38	10.25	10.31	9.11	14.50	14.84	16.00	17.00
Aug.....	11.00	11.50	8.37	10.25	10.35	9.19	15.85	14.78	17.35	18.00
Sept.....	11.00	11.50	8.55	10.19	10.45	9.86	16.00	14.74	17.50	17.50
Oct.....	11.00	11.50	8.75	10.00	10.40	9.53	15.56	14.91	17.06	17.50
Nov.....	11.00	11.50	8.75	10.00	10.22	9.24	15.06	15.10	16.56	17.00
Dec.....	11.00	11.50	8.90	10.41	10.64	9.46	15.80	14.75	17.30	17.50
1899.										
Jan.....	11.12	11.50	9.56	10.75	11.00	9.89	16.62	15.53	18.12	18.50
Feb.....	12.12	12.50	10.42	11.69	11.69	10.87	18.00	14.98	19.50	20.25
Mar.....	14.60	16.75	12.70	14.37	14.77	13.29	24.30	14.62	25.80	24.80
Apr.....	15.12	17.00	13.25	15.00	15.06	14.50	25.37	16.24	26.87	25.75
May.....	15.37	17.25	13.43	15.30	16.32	15.07	26.75	15.27	28.25	25.20
June.....	17.60	19.50	14.85	16.50	18.70	15.94	30.10	15.09	31.60	27.25
July.....	19.50	21.50	16.25	17.81	20.45	17.50	33.12	17.18	35.50	28.25
Aug.....	20.50	22.50	17.25	18.10	22.37	18.37	35.62	26.49	38.50	31.00
Sept.....	23.00	24.25	19.00	19.50	23.85	20.90	38.37	26.86	40.50	32.50
Oct.....	23.00	25.00	19.25	19.65	24.50	21.19	33.75	33.37	40.50	34.00
Nov.....	23.50	25.50	19.25	20.19	24.69	21.66	36.50	32.39	35.50	35.00
Dec.....	23.50	25.50	19.124	20.31	25.00	21.52	38.75	(a)	34.50	35.00

a Not reported.

TABLE III.—RELATIVE MONTHLY PRICES OF PIG IRON, STEEL BILLETS, RAILS, ETC., 1889 TO 1899.

[The combinations controlling the most of these products were organized in December, 1888, and the first half of 1899.]

Year and month.	Pig iron.						Steel billets, rails, etc.			
	Foundry No. 2, local, at Chicago.	Charcoal, Lake Superior, at Chicago.	Gray forge, southern, at Cincinnati.	Gray forge at Philadelphia.	Bessemer at Pittsburg.	Gray forge, lake ore, at Pittsburg.	Billets at Pittsburg.	Billets and slabs.	Slabs, 8 in. by 8 in., at Pittsburg.	Rails at mills in Pennsylvania.
1889.										
Jan	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Feb	91.8	97.5	94.4	98.4	97.6	95.2	96.9	101.7	98.3	100.0
Mar	98.3	97.5	97.2	98.4	98.5	96.8	96.9	98.8	97.5	100.0
Apr	94.0	96.3	98.1	96.8	97.0	91.9	96.0	100.9	95.8	100.0
May	91.8	93.8	96.3	95.2	95.5	90.3	95.7	95.5	95.8	98.2
June	90.3	92.5	95.4	96.1	95.5	90.3	94.7	93.9	95.0	100.0
July	91.8	92.5	100.0	96.8	97.6	91.8	96.4	94.6	95.8	101.8
Aug	91.8	92.5	99.0	98.4	104.5	96.1	100.9	95.2	100.0	101.8
Sept.	91.8	93.8	100.0	98.4	107.5	100.0	104.6	95.0	102.5	107.3
Oct.	97.0	97.5	106.5	100.6	123.9	107.1	119.8	96.1	111.7	116.4
Nov	98.5	100.0	112.0	108.1	129.9	111.3	120.9	97.2	120.0	123.6
Dec	106.6	110.0	127.8	111.3	141.8	117.7	126.2	101.0	123.3	127.3
1890.										
Jan	117.0	115.0	127.8	115.5	140.9	116.1	130.3	115.8	129.2	128.2
Feb	109.6	115.0	127.8	112.1	184.6	116.1	125.4	117.0	120.8	127.3
Mar	102.2	112.5	105.6	109.7	120.9	109.7	111.6	119.7	105.0	123.6
Apr	99.2	107.5	99.0	103.9	106.6	99.0	100.9	112.2	99.2	121.8
May	96.3	105.0	99.0	101.0	104.8	98.4	98.0	108.6	98.3	113.6
June	96.3	102.5	102.8	100.0	113.4	98.4	107.6	104.3	108.8	114.5
July	97.7	100.0	99.0	98.4	111.2	98.4	109.2	94.0	108.3	114.5
Aug	97.7	101.3	100.9	97.4	108.1	98.4	107.6	109.8	106.7	113.6
Sept.	97.7	101.3	99.1	96.8	107.5	98.4	107.1	108.5	105.8	110.9
Oct.	94.8	96.8	99.0	96.8	108.6	96.8	102.8	107.3	98.3	109.1
Nov	92.5	96.3	99.1	96.8	101.5	96.8	97.3	104.7	96.7	105.5
Dec	90.3	93.8	93.6	96.8	99.1	95.2	93.3	101.6	92.5	108.6
1891.										
Jan	87.4	92.5	93.5	93.5	95.2	91.9	91.0	99.5	92.5	105.5
Feb	80.3	91.3	95.4	93.5	97.0	93.5	92.5	94.0	92.5	109.1
Mar	80.3	90.0	100.0	95.2	98.5	98.8	93.3	93.9	91.7	109.1
Apr	92.5	90.0	95.4	95.2	96.1	91.1	90.1	91.9	88.3	109.1
May	91.8	85.0	95.3	95.2	98.5	90.3	90.7	94.4	90.8	109.1
June	90.3	83.8	95.4	95.2	97.0	90.3	89.8	(a)	90.8	109.1
July	89.6	85.0	95.3	94.2	97.0	90.3	90.7	92.1	90.0	109.1
Aug	89.6	85.0	93.6	93.5	95.5	90.3	90.0	93.1	90.0	109.1
Sept.	89.6	86.3	93.5	92.6	93.1	90.3	89.9	93.0	88.3	109.1
Oct.	89.6	85.0	95.4	92.6	92.5	89.4	88.5	92.4	87.5	109.1
Nov	88.2	85.0	95.3	91.9	90.4	87.1	85.9	91.3	85.8	109.1
Dec	87.4	81.3	91.7	91.9	91.6	87.1	86.1	88.6	85.8	109.1
1892.										
Jan	85.9	86.3	90.7	91.9	93.4	87.1	88.9	88.6	88.3	109.1
Feb	85.1	85.0	90.7	91.9	91.0	85.5	86.6	89.0	86.2	109.1
Mar	82.9	85.0	88.5	90.3	88.1	83.9	81.8	86.9	81.7	109.1
Apr	82.9	83.8	87.0	90.3	86.6	83.9	81.1	86.9	81.0	109.1
May	82.9	82.5	87.0	88.7	85.7	83.5	79.7	84.7	79.7	109.1
June	82.9	82.5	86.3	87.1	84.2	82.3	81.7	83.0	81.6	109.1
July	82.9	82.5	84.2	83.9	83.6	82.3	83.6	74.7	83.8	109.1
Aug	81.5	82.5	82.9	83.9	83.6	80.6	84.7	85.1	84.4	109.1
Sept.	80.0	82.5	81.5	83.9	83.3	80.6	84.1	85.8	83.8	109.1
Oct.	80.0	83.8	83.8	85.5	83.0	80.6	83.7	85.7	83.4	109.1
Nov	80.0	82.5	86.7	85.5	83.8	80.6	88.7	85.6	88.1	109.1
Dec	80.0	82.5	85.2	85.5	83.0	80.6	79.7	84.7	79.7	109.1
1893.										
Jan	79.2	82.5	85.2	84.5	81.1	79.4	76.7	82.1	76.9	105.5
Feb	75.9	82.5	82.4	83.9	80.7	79.0	76.9	80.7	77.1	105.5
Mar	77.0	82.5	80.7	83.9	82.1	79.0	80.4	82.1	80.3	105.5
Apr	77.0	82.5	79.6	83.9	82.7	79.0	79.8	81.5	79.8	105.5
May	76.8	82.5	79.2	83.9	80.7	79.0	77.1	80.4	77.3	105.5
June	77.0	80.0	77.8	83.9	80.6	79.0	77.2	80.5	77.3	105.5
July	75.8	80.0	77.3	83.9	78.9	77.4	74.9	78.8	75.2	105.5
Aug	75.5	80.0	75.2	83.5	78.1	77.4	72.7	76.4	73.2	105.5
Sept.	75.5	80.0	73.6	81.2	72.8	75.4	68.7	72.3	69.4	105.5
Oct.	75.5	80.0	72.2	79.0	69.3	70.1	64.2	70.4	65.2	100.0
Nov	75.5	78.8	72.6	77.4	68.4	68.8	61.8	70.1	62.9	90.9
Dec	69.3	77.5	73.6	77.0	66.7	67.4	59.4	67.5	60.6	87.3
1894.										
Jan	74.1	77.5	72.2	74.6	65.1	63.7	57.3	67.5	58.7	87.3
Feb	70.3	77.0	69.9	73.4	64.2	62.7	56.0	63.6	57.5	87.3
Mar	66.9	76.3	66.7	71.0	63.0	62.0	55.3	60.3	56.8	87.3
Apr	62.2	76.3	63.0	69.4	62.6	61.1	55.8	58.6	57.3	87.3
May	62.2	76.3	63.0	67.7	74.3	61.6	64.0	57.9	65.0	87.3
June	62.2	76.3	63.9	68.1	78.5	63.1	64.4	61.2	65.4	87.3

a Not reported.

TABLE III.—RELATIVE MONTHLY PRICES OF PIG IRON, STEEL BILLETS, RAILS, ETC., 1889 to 1899—Concluded.

Year and month.	Pig iron.						Steel billets, rails, etc.			
	Foundry No. 2, local, at Chicago.	Char-coal, Lake Superior, at Chicago.	Gray forge, southern, at Cincinnati.	Gray forge at Philadelphia.	Bessemer at Pittsburgh.	Gray forge, lake ore, at Pittsburgh.	Billets at Pittsburgh.	Billets and slabs.	Slabs, 8 in. by 8 in., at Pittsburgh.	Rails at mills in Pennsylvania.
1894.										
July	60.0	75.0	64.8	67.7	75.2	64.1	64.0	60.9	65.0	87.3
Aug.	59.2	72.5	65.2	67.7	72.4	64.5	61.0	57.6	62.2	87.3
Sept.	59.2	71.8	64.8	67.7	68.8	64.6	61.1	57.8	60.6	87.3
Oct.	59.2	70.0	64.8	67.7	65.8	63.5	56.9	57.5	58.3	87.3
Nov.	57.5	67.5	63.0	67.7	63.6	62.7	55.4	56.4	56.9	87.3
Dec.	57.8	65.0	62.0	67.7	61.6	61.1	53.8	56.4	55.4	87.3
1896.										
Jan.	57.8	65.0	61.1	67.7	60.1	59.2	53.0	53.7	54.7	80.0
Feb.	57.8	65.0	61.1	67.7	60.6	58.6	53.2	53.7	54.8	80.0
Mar.	58.1	65.0	61.1	67.7	61.1	58.0	52.8	53.8	54.1	80.0
Apr.	60.7	63.8	61.1	67.7	63.8	59.8	54.9	53.4	56.5	80.0
May.	60.7	65.0	61.1	67.4	66.0	63.3	58.0	54.3	59.3	80.0
June.	64.5	65.0	73.2	71.7	74.6	68.1	66.8	56.5	67.0	80.0
July.	71.9	67.5	84.3	77.7	84.4	73.9	73.8	62.1	74.2	87.3
Aug.	78.2	67.5	85.2	79.4	89.7	77.2	77.8	66.0	77.5	87.3
Sept.	80.7	72.5	92.6	81.9	102.6	86.3	85.3	67.7	85.0	101.8
Oct.	82.9	77.5	92.6	83.0	94.1	84.6	77.9	73.2	78.0	101.8
Nov.	82.9	77.5	92.6	80.3	83.2	81.6	68.0	72.5	68.8	101.8
Dec.	82.9	80.0	92.6	76.8	70.9	76.5	60.3	71.4	61.6	101.8
1896.										
Jan.	74.3	72.5	78.1	74.5	70.5	70.3	59.7	76.6	61.0	101.8
Feb.	74.1	70.0	72.2	74.2	77.3	71.0	61.8	69.4	62.9	101.8
Mar.	71.1	67.5	71.0	72.9	73.1	70.5	60.8	68.7	62.0	101.8
Apr.	71.1	67.5	69.3	72.2	79.5	70.0	69.3	63.8	70.0	101.8
May.	69.3	67.5	70.4	71.0	76.6	69.6	69.3	69.0	70.0	101.8
June.	68.1	67.5	69.9	71.0	74.4	68.5	68.0	72.7	68.7	101.8
July.	66.6	67.5	66.7	70.3	72.4	66.9	67.0	68.7	67.8	101.8
Aug.	66.2	67.5	64.8	69.4	65.1	62.1	66.7	(a)	67.5	101.8
Sept.	63.7	67.5	66.7	69.4	67.5	61.3	70.2	72.9	70.8	101.8
Oct.	64.5	67.5	68.1	69.7	69.9	63.7	70.2	70.8	70.8	101.8
Nov.	66.3	67.5	73.6	71.7	74.4	66.7	71.1	69.5	71.7	101.8
Dec.	66.6	67.5	71.1	72.6	68.9	64.1	62.2	61.1	63.8	101.8
1897.										
Jan.	65.3	67.5	69.0	71.4	64.3	62.3	54.8	54.7	56.4	90.9
Feb.	65.2	67.5	66.7	71.0	64.0	61.5	54.2	55.7	55.8	72.7
Mar.	64.5	67.5	66.2	68.7	63.1	60.7	54.9	56.5	56.5	65.5
Apr.	63.7	67.5	62.2	67.7	59.2	57.1	51.9	56.5	53.7	65.5
May.	61.5	65.0	60.7	66.1	56.8	56.1	49.1	56.6	51.1	65.5
June.	60.7	65.0	61.1	65.2	58.1	53.9	50.0	55.9	51.9	65.5
July.	60.7	65.0	62.6	65.7	56.1	53.9	49.8	(a)	51.7	65.5
Aug.	60.7	65.0	62.6	64.8	57.0	53.5	49.8	(a)	51.7	65.5
Sept.	61.6	62.5	65.2	67.7	59.9	57.1	55.5	53.2	57.0	65.5
Oct.	65.2	62.5	66.7	67.7	63.9	62.9	58.5	54.5	59.8	65.5
Nov.	65.2	62.5	66.7	67.7	62.8	61.7	56.4	52.5	56.9	65.5
Dec.	65.2	62.5	66.7	67.7	60.2	58.1	53.8	50.0	55.0	65.5
1898.										
Jan.	65.2	62.5	66.7	66.9	59.7	58.1	58.1	50.4	54.8	65.5
Feb.	64.8	57.5	64.8	66.1	60.1	57.9	53.6	50.7	55.2	65.5
Mar.	63.7	57.5	63.3	66.1	61.9	58.5	54.2	50.6	55.8	65.5
Apr.	64.6	57.5	63.0	66.1	61.8	59.5	53.6	50.8	55.2	65.5
May.	65.2	57.5	63.9	66.1	62.1	58.8	52.8	51.2	54.5	65.5
June.	65.2	57.5	63.8	66.1	62.2	59.0	52.1	54.5	53.8	63.6
July.	65.2	57.5	62.1	66.1	61.6	58.8	51.6	53.7	58.8	61.8
Aug.	65.2	57.5	62.0	66.1	61.8	59.3	56.4	53.5	57.8	65.5
Sept.	65.2	57.5	63.3	65.7	62.4	60.4	56.9	53.3	58.3	63.6
Oct.	65.2	57.5	64.8	64.5	62.1	60.2	55.8	53.9	56.9	63.6
Nov.	65.2	57.5	64.8	64.5	61.0	59.6	53.6	54.6	55.2	61.8
Dec.	65.2	57.5	65.9	67.2	63.5	61.0	56.2	53.8	57.7	63.6
1899.										
Jan.	65.9	57.5	70.8	69.4	65.7	63.8	59.1	56.2	60.4	67.3
Feb.	71.8	62.5	77.2	75.4	69.8	70.1	64.0	54.2	65.0	73.6
Mar.	86.5	78.8	94.1	92.7	88.2	85.7	86.4	52.9	86.0	90.2
Apr.	89.6	85.0	98.1	96.8	89.9	93.5	90.2	58.7	89.6	98.6
May.	91.1	86.3	99.6	98.7	97.4	97.2	95.1	55.2	94.2	91.6
June.	104.3	97.5	110.0	106.5	111.6	102.8	107.0	54.6	105.3	99.1
July.	115.5	107.5	120.4	114.9	122.1	112.9	117.8	62.1	118.3	102.7
Aug.	121.4	112.5	127.8	116.8	133.6	118.5	126.7	96.8	128.3	112.7
Sept.	136.3	121.8	140.7	125.8	142.4	134.8	138.5	97.1	135.0	113.2
Oct.	136.3	125.0	142.6	126.8	146.3	136.7	120.0	120.7	135.0	123.6
Nov.	139.2	127.5	142.6	130.3	147.4	139.1	129.8	117.1	118.3	127.3
Dec.	139.2	127.5	141.7	131.0	149.3	138.8	137.8	(a)	115.0	127.3

a Not reported.

TABLE IV.—MONTHLY PRICES OF FINISHED IRON AND STEEL, 1889 TO 1899.

[Prices of skelp and black merchant pipe are from the books of one of the combinations, those of wire nails at New York and galvanized barbed wire from the Report of the Industrial Commission; other prices are from the Iron Age. The combinations controlling the most of these products were organized in December, 1886, and the first half of 1899.]

Year and month.	Bar iron, common, at Chicago, per cwt.	Bar iron, best refined, from store at Philadelphia, per cwt.	Bar iron at Philadelphia, per cwt.	Bar iron, all muck, at Pittsburgh, per cwt.	Steel tank plates at Philadelphia, per cwt.	Steel beams at Philadelphia, per cwt.	Steel angles at Chicago, per cwt.	Skelp (plates), per ton.	Sheets, No. 27, at Chicago, per cwt.
1889.									
Jan.....	\$1.70	\$2.00	\$1.85	\$1.75	\$2.05	\$2.80	\$2.15	\$36.76	\$3.05
Feb.....	1.67½	1.90	1.85	1.70	2.01	2.80	2.12½	35.53	3.05
Mar.....	1.62½	1.80	1.82	1.65	1.95	2.80	2.12½	34.18	3.00
Apr.....	1.60	1.80	1.80	1.65	1.95	2.80	2.12½	33.76	3.05
May.....	1.56	1.85	1.80	1.60	1.96	2.80	2.10	32.18	2.95
June.....	1.55	1.90	1.80	1.60	1.95	2.80	2.10	33.81	3.00
July.....	1.60	1.90	1.85	1.60	2.01	2.80	2.15	33.81	3.12
Aug.....	1.65	1.95	1.90	1.72	2.01	2.80	2.25	34.28	3.17
Sept.....	1.70	1.95	1.90	1.75	2.20	2.80	2.25	34.89	3.20
Oct.....	1.75	2.00	1.92	1.80	2.22	2.80	2.30	35.58	3.80
Nov.....	1.85	2.05	1.93	1.80	2.25	3.10	2.35	36.83	3.80
Dec.....	1.92½	2.15	1.95	1.90	2.33	3.10	2.40	37.14	3.80
1890.									
Jan.....	1.95	2.20	1.97	1.90	2.75	3.10	2.55	38.11	3.80
Feb.....	1.90	2.20	1.92	1.90	2.60	3.10	2.55	36.69	3.80
Mar.....	1.80	2.10	1.90	1.85	2.55	3.10	2.50	37.29	3.20
Apr.....	1.75	2.10	1.90	1.85	2.45	3.10	2.35	37.95	3.10
May.....	1.70	2.10	1.85	1.75	2.35	3.10	2.25	37.47	3.00
June.....	1.80	2.00	1.88	1.80	2.35	3.10	2.25	36.49	3.15
July.....	1.80	1.90	1.82	1.80	2.40	3.10	2.30	36.41	3.15
Aug.....	1.85	1.95	1.85	1.85	2.45	3.10	2.35	37.78	3.25
Sept.....	1.90	2.00	1.85	1.85	2.45	3.10	2.35	38.02	3.25
Oct.....	1.85	2.00	1.90	1.85	2.45	3.10	2.35	38.41	3.20
Nov.....	1.80	2.00	1.90	1.85	2.45	3.10	2.35	38.10	3.15
Dec.....	1.77½	2.00	1.83	1.85	2.35	3.10	2.35	37.88	3.05
1891.									
Jan.....	1.70	2.00	1.82	1.80	2.15	3.10	2.30	37.33	2.95
Feb.....	1.72½	1.90	1.83	1.75	2.15	3.10	2.25	36.23	2.95
Mar.....	1.70	1.90	1.75	1.75	2.08	3.10	2.25	37.22	3.00
Apr.....	1.65	1.90	1.80	1.70	2.15	3.10	2.25	35.53	2.95
May.....	1.65	1.90	1.70	1.70	2.15	3.10	2.25	34.64	3.00
June.....	1.67½	1.90	1.80	1.70	2.12	3.10	2.15	34.23	3.00
July.....	1.67½	1.90	1.70	1.70	2.10	3.10	2.10	33.59	2.95
Aug.....	1.67½	1.90	1.75	1.70	2.07	3.10	2.10	33.28	2.95
Sept.....	1.75	1.90	1.75	1.70	2.05	3.10	2.10	33.80	2.95
Oct.....	1.75	1.85	1.70	1.70	2.05	3.10	2.05	34.35	2.95
Nov.....	1.67½	1.85	1.70	1.68	2.05	3.10	2.10	34.30	2.90
Dec.....	1.70	1.90	1.70	1.68	2.05	3.10	2.10	33.51	2.95
1892.									
Jan.....	1.65	1.85	1.71	1.70	1.87	3.10	2.00	32.98	2.90
Feb.....	1.67½	1.85	1.70	1.68	1.85	2.98	1.95	32.32	2.90
Mar.....	1.62½	1.85	1.70	1.62	1.85	2.25	1.95	32.01	2.85
Apr.....	1.57½	1.90	1.70	1.60	1.84	2.20	1.90	31.36	2.85
May.....	1.52½	1.90	1.67	1.58	1.76	2.15	1.85	31.87	2.75
June.....	1.55	1.90	1.67	1.60	1.75	2.10	1.85	31.91	2.80
July.....	1.62½	1.90	1.70	1.70	1.84	2.15	2.10	32.12	2.90
Aug.....	1.65	1.90	1.74	1.68	1.99	2.30	2.10	33.20	2.95
Sept.....	1.65	1.85	1.72	1.64	1.90	2.22	2.05	33.06	2.90
Oct.....	1.62½	1.85	1.70	1.67	1.90	2.20	2.00	32.72	2.95
Nov.....	1.62½	1.85	1.70	1.64	1.87	2.20	1.95	32.52	3.00
Dec.....	1.62½	1.80	1.66	1.60	1.85	2.07	1.90	34.24	2.95
1893.									
Jan.....	1.57½	1.80	1.65	1.59	1.85	2.00	1.95	32.78	2.90
Feb.....	1.55	1.80	1.65	1.56	1.82	2.00	1.90	32.33	2.87½
Mar.....	1.57½	1.75	1.63	1.57	1.80	2.00	1.90	32.14	2.85
Apr.....	1.52½	1.75	1.62	1.55	1.80	2.00	1.90	31.72	2.85
May.....	1.50	1.75	1.62	1.55	1.80	2.00	1.90	32.00	2.85
June.....	1.47½	1.75	1.61	1.52	1.75	2.00	1.80	32.00	2.85
July.....	1.47½	1.70	1.60	1.52	1.70	1.85	1.77½	32.16	2.85
Aug.....	1.45	1.70	1.60	1.50	1.70	1.80	1.77½	32.80	2.85
Sept.....	1.47½	1.65	1.55	1.50	1.65	1.80	1.77½	30.52	2.80
Oct.....	1.45	1.60	1.55	1.40	1.60	1.80	1.77½	30.27	2.77½
Nov.....	1.40	1.60	1.49	1.35	1.55	1.75	1.70	29.59	2.75
Dec.....	1.35	1.55	1.42	1.35	1.45	1.67	1.62½	27.55	2.67½
1894.									
Jan.....	1.25	1.55	1.41	1.30	1.42	1.59	1.55	25.67	2.65
Feb.....	1.20	1.50	1.40	1.25	1.35	1.49	1.35	25.07	2.50
Mar.....	1.15	1.45	1.33	1.20	1.24	1.35	1.40	23.55	2.35
Apr.....	1.10	1.40	1.20	1.20	1.20	1.30	1.35	23.30	2.30
May.....	1.05	1.30	1.20	1.25	1.22	1.31	1.35	26.05	2.35
June.....	1.05	1.30	1.20	1.25	1.32	1.40	1.45	25.00	2.40

TABLE IV.—MONTHLY PRICES OF FINISHED IRON AND STEEL, 1889 TO 1899—Continued.

Year and month.	Bar iron, common, at Chicago, per cwt.	Bar iron, best refined, from store at Philadelphia, per cwt.	Bar iron at Philadelphia, per cwt.	Bar iron, all muck, at Pittsburgh, per cwt.	Steel tank plates at Philadelphia, per cwt.	Steel beams at Philadelphia, per cwt.	Steel angles at Chicago, per cwt.	Skelp (plates), per ton.	Sheets, No. 27, at Chicago, per cwt.
1894.									
July	\$1.10	\$1.30	\$1.20	\$1.20	\$1.35	\$1.40	\$1.45	\$24.59	\$2.40
Aug	1.10	1.30	1.22	1.17	1.27	1.40	1.40	24.50	2.40
Sept	1.05	1.25	1.24	1.17	1.30	1.35	1.40	24.12	2.35
Oct	1.00	1.25	1.16	1.15	1.29	1.30	1.40	22.00	2.35
Nov	1.05	1.20	1.15	1.15	1.24	1.30	1.40	22.05	2.35
Dec	1.05	1.25	1.11	1.10	1.25	1.30	1.40	21.99	2.30
1895.									
Jan	1.05	1.20	1.10	1.10	1.25	1.30	1.30	22.19	2.35
Feb	1.00	1.20	1.15	1.10	1.21	1.30	1.30	22.43	2.30
Mar	1.00	1.25	1.15	1.10	1.20	1.30	1.30	22.40	2.25
Apr	1.10	1.30	1.15	1.10	1.20	1.30	1.25	21.84	2.20
May	1.10	1.35	1.15	1.12	1.24	1.31	1.30	22.58	2.30
June	1.20	1.35	1.16	1.22	1.39	1.43	1.50	25.61	2.50
July	1.30	1.60	1.28	1.32	1.68	1.65	1.60	27.96	2.65
Aug	1.40	1.70	1.50	1.36	1.81	1.66	1.75	28.76	2.85
Sept	1.50	1.70	1.46	1.44	1.96	1.82	1.75	30.67	2.90
Oct	1.50	1.60	1.44	1.42	1.81	1.75	1.75	29.96	2.80
Nov	1.50	1.60	1.40	1.40	1.68	1.76	1.75	28.07	2.65
Dec	1.40	1.45	1.33	1.37	1.50	1.69	1.60	28.17	2.50
1896.									
Jan	1.30	1.45	1.23	1.25	1.43	1.60	1.50	26.02	2.45
Feb	1.35	1.40	1.24	1.25	1.40	1.50	1.50	26.32	2.40
Mar	1.30	1.35	1.23	1.21	1.40	1.55	1.45	25.27	2.25
Apr	1.30	1.40	1.18	1.20	1.44	1.60	1.45	27.08	2.25
May	1.30	1.40	1.20	1.20	1.45	1.68	1.45	26.61	2.35
June	1.30	1.40	1.20	1.20	1.40	1.70	1.45	26.45	2.30
July	1.30	1.40	1.20	1.20	1.38	1.76	1.35	27.03	2.30
Aug	1.30	1.40	1.21	1.20	1.35	1.70	1.35	27.64	2.25
Sept	1.30	1.40	1.20	1.20	1.31	1.70	1.30	25.34	2.20
Oct	1.30	1.40	1.20	1.20	1.27	1.70	1.30	24.58	2.20
Nov	1.15	1.40	1.20	1.22	1.25	1.70	1.30	23.67	2.25
Dec	1.25	1.40	1.15	1.25	1.23	1.62	1.35	22.57	2.20
1897.									
Jan	1.25	1.40	1.15	1.22	1.20	1.70	1.25	20.99	2.15
Feb	1.25	1.40	1.15	1.20	1.20	1.70	1.25	21.18	2.12
Mar	1.12	1.40	1.14	1.20	1.20	1.70	1.25	19.57	2.07
Apr	1.05	1.25	1.15	1.14	1.20	1.70	1.20	19.43	2.02
May	1.05	1.25	1.10	1.04	1.11	1.49	1.15	18.92	2.00
June	1.00	1.25	1.07	.99	1.10	1.25	1.15	18.83	1.90
July	1.07	1.25	1.08	.95	1.10	1.15	1.10	18.83	1.95
Aug	1.10	1.25	1.08	.99	1.08	1.15	1.12	18.98	2.05
Sept	1.10	1.25	1.14	1.07	1.14	1.15	1.17	19.82	2.05
Oct	1.15	1.35	1.19	1.15	1.15	1.20	1.20	21.63	2.15
Nov	1.10	1.35	1.20	1.15	1.14	1.20	1.20	20.91	2.20
Dec	1.10	1.35	1.15	1.15	1.13	1.20	1.20	19.62	2.15
1898.									
Jan	1.05	1.40	1.11	1.15	1.10	1.30	1.30	19.77	2.10
Feb	1.05	1.35	1.11	1.15	1.10	1.30	1.15	19.87	2.07
Mar	1.05	1.35	1.06	1.05	1.08	1.30	1.15	19.70	2.05
Apr	1.07	1.25	1.05	1.05	1.12	1.30	1.30	19.86	2.00
May	1.10	1.25	1.05	1.05	1.21	1.30	1.25	19.29	2.05
June	1.12	1.25	1.05	1.05	1.23	1.30	1.20	19.24	1.95
July	1.02	1.25	1.00	1.05	1.20	1.30	1.20	19.24	1.95
Aug	1.05	1.25	1.05	1.05	1.23	1.37	1.30	19.33	2.00
Sept	1.05	1.25	1.14	1.08	1.27	1.40	1.30	20.71	2.05
Oct	1.05	1.25	1.13	1.10	1.27	1.38	1.30	20.81	2.00
Nov	1.02	1.25	1.10	1.04	1.25	1.35	1.30	20.33	2.00
Dec	1.05	1.25	1.11	1.00	1.26	1.35	1.30	20.22	1.95
1899.									
Jan	1.05	1.30	1.15	1.12	1.35	1.40	1.40	20.62	2.00
Feb	1.15	1.45	1.20	1.22	1.55	1.42	1.40	21.91	2.35
Mar	1.45	1.70	1.41	1.38	1.89	1.55	1.55	25.59	2.45
Apr	1.57	1.75	1.50	1.65	2.18	1.64	1.75	30.13	2.80
May	1.62	1.90	1.56	1.75	2.23	1.63	1.75	33.92	2.95
June	1.80	2.00	1.81	1.88	2.48	1.82	1.90	37.88	3.05
July	1.85	2.30	2.00	2.00	2.65	2.15	2.15	42.65	3.15
Aug	2.00	2.40	2.00	2.23	2.80	2.40	2.25	46.00	3.20
Sept	2.25	2.50	2.10	2.50	3.00	2.40	2.40	44.22	3.25
Oct	2.30	2.50	2.10	2.60	3.00	2.40	2.40	45.82	3.15
Nov	2.30	2.50	2.20	2.56	2.65	2.40	2.40	42.82	3.10
Dec	2.30	2.50	2.05	2.50	2.40	2.40	2.40	37.29	3.00

TRUSTS AND INDUSTRIAL COMBINATIONS

TABLE IV.—MONTHLY PRICES OF FINISHED IRON AND
1899—Continued.

Year and month.	Barbed wire, galvanized, a ¹ mill, per cwt.	Barbed wire at Chicago, per cwt. (a)	Cut steel nails at Chicago, per cwt.	Cut nails at Pittsburg, per cwt.	Wire nails at New York, per cwt.	Wire nails at Chicago, per cwt.	Mach. ery st. open heart, Chicago, per cwt.
1889.							
Jan.....	\$3.57	\$2.80	\$1.96	\$1.88	\$2.29	\$2.56	\$2.56
Feb.....	3.60	2.75	2.00	1.87	2.30	2.40	2.40
Mar.....	3.53 ¹	2.70	1.96	1.88	2.27 ¹	2.35	2.35
Apr.....	3.50	2.70	1.96	1.87	2.55	2.35	2.35
May.....	3.50	2.65	1.90	1.83	2.42	2.30	2.30
June.....	(b)	2.65	1.85	1.82	2.25	2.30	2.30
July.....	(b)	2.65	1.85	1.84	2.25	2.30	2.30
Aug.....	(b)	2.65	1.85	1.87	2.25	2.25	2.25
Sept.....	3.30	2.75	2.00	1.90	2.25	2.35	2.35
Oct.....	3.80	3.05	2.40	2.05	2.65	2.55	2.55
Nov.....	3.90	3.15	2.40	2.25	3.00	3.15	3.15
Dec.....	3.90	3.25	2.52 ¹	2.25	3.00	3.00	3.00
1890.							
Jan.....	4.00	3.25	2.50	2.35	2.85	2.90	2.90
Feb.....	4.00	3.35	2.40	2.25	2.85	2.95	2.95
Mar.....	3.97	3.30	2.30	2.25	2.76 ¹	2.75	2.75
Apr.....	(b)	3.15	2.10	1.90	2.48 ¹	2.40	2.40
May.....	3.17 ¹	2.90	1.85	1.60	2.22	2.30	2.30
June.....	3.25	2.85	1.95	2.00	2.26 ¹	2.40	2.40
July.....	3.28 ¹	2.85	2.00	1.88	2.30	2.40	2.40
Aug.....	(b)	2.85	2.00	1.85	2.41 ¹	2.50	2.50
Sept.....	3.32	2.85	1.95	1.85	2.38 ¹	2.55	2.55
Oct.....	3.29	2.85	1.95	1.85	2.29	2.40	2.40
Nov.....	3.11 ¹	2.75	1.85	1.83	2.22 ¹	2.30	2.30
Dec.....	3.00	2.70	1.75	1.82	2.13 ¹	2.25	2.25
1891.							
Jan.....	3.25	2.70	1.75	1.60	2.12	2.22	2.22
Feb.....	3.10	2.70	1.75	1.62	2.15	2.27	2.27
Mar.....	3.40	2.85	1.80	1.65	2.15	2.22	2.22
Apr.....	3.50	2.85	1.75	1.55	2.08	2.12	2.12
May.....	3.50	2.82 ¹	1.70	1.60	2.00	2.05	2.05
June.....	3.50	2.75	1.70	1.60	1.95	2.02	2.02
July.....	3.50	2.70	1.65	1.60	2.00	2.07	2.07
Aug.....	3.25	2.77 ¹	1.70	1.55	1.95	2.02	2.02
Sept.....	3.25	2.80	1.70	1.60	1.85	2.00	2.00
Oct.....	3.05	2.55	1.65	1.60	1.82	1.90	1.90
Nov.....	3.05	2.55	1.65	1.60	1.71	1.85	1.85
Dec.....	3.05	2.55	1.65	1.58	1.68	1.80	1.80
1892.							
Jan.....	3.05	2.60	1.62 ¹	1.55	1.67	1.82	1.82
Feb.....	2.77	2.45	1.62 ¹	1.49	1.71	1.87	1.87
Mar.....	2.65	2.40	1.62 ¹	1.50	1.73	1.85	1.85
Apr.....	2.65	2.30	1.60	1.55	1.66	1.75	1.75
May.....	2.65	2.30	1.60	1.48	1.60	1.70	1.70
June.....	2.65	2.30	1.62 ¹	1.47	1.50	1.67	1.67
July.....	2.62	2.30	1.60	1.50	1.57	1.70	1.70
Aug.....	2.62	2.20	1.62 ¹	1.50	1.61	1.70	1.70
Sept.....	2.60	2.20	1.62 ¹	1.51	1.57	1.67	1.67
Oct.....	2.52	2.15	1.62 ¹	1.50	1.50	1.57	1.57
Nov.....	2.41	2.15	1.60	1.49	1.47	1.60	1.60
Dec.....	2.42	2.10	1.60	1.45	1.46	1.60	1.60
1893.							
Jan.....	2.37	2.40	1.60	1.42	1.37	1.57	1.57
Feb.....	2.40	2.40	1.60	1.42	1.39	1.55	1.55
Mar.....	2.42	2.45	1.42 ¹	1.15	1.50	1.65	1.65
Apr.....	2.45	2.45	1.35	1.15	1.55	1.65	1.65
May.....	2.45	2.45	1.32 ¹	1.10	1.51	1.60	1.60
June.....	2.45	2.45	1.25	1.05	1.39	1.50	1.50
July.....	2.45	2.45	1.22 ¹	1.05	1.35	1.47	1.47
Aug.....	2.45	2.45	1.22 ¹	1.05	1.44	1.47	1.47
Sept.....	2.40	2.35	1.22 ¹	1.00	1.45	1.47	1.47
Oct.....	2.28	2.25	1.22 ¹	1.00	1.30	1.40	1.40
Nov.....	2.15	2.15	1.20	1.00	1.18	1.30	1.30
Dec.....	2.10	2.10	1.17 ¹	1.00	1.12	1.27	1.27
1894.							
Jan.....	2.05	2.25	1.15	.95	1.10	1.17	1.17
Feb.....	2.09	2.25	1.05	.99	1.09	1.20	1.20
Mar.....	2.15	2.30	1.02 ¹	.99	1.09	1.15	1.15
Apr.....	2.10	2.20	1.00	.91	.94	1.00	1.00
May.....	2.05	2.15	.95	.90	1.05	1.07	1.07
June.....	2.07	2.20	.95	.94	1.11	1.20	1.20

^aThe prices from January, 1889, to December, 1889, are for painted wire; to December, 1899, are for galvanized wire.

^bNot reported.

TABLE IV.—MONTHLY PRICES OF FINISHED IRON AND STEEL, 1889 TO 1899—Concluded.

Year and month.	Barbed wire, galvanized, at mill, per cwt.	Barbed wire at Chicago, per cwt.	Cut steel nails at Chicago, per cwt.	Cut nails at Pittsburgh, per cwt.	Wire nails at New York, per cwt.	Wire nails at Chicago, per cwt.	Machinery steel, open hearth, at Chicago, per cwt.	Spring steel at Chicago, per cwt.	Black merchant pipe, $\frac{1}{2}$ in. to 8 in., per ton.
1894.									
July	\$2.05	\$2.25	\$1.00	\$0.95	\$1.14	\$1.20	\$1.70	\$1.85	\$37.60
Aug	2.03	2.25	.95	.90	1.07	1.15	1.65	1.85	39.00
Sept	2.00	2.20	.95	.90	.99	1.10	1.60	1.80	38.00
Oct	1.99	2.15	.90	.85	.99	1.05	1.55	1.75	38.80
Nov	1.90	2.00	.90	.86	.92	1.05	1.55	1.75	35.60
Dec	1.85	1.95	.90	.80	.85	1.00	1.55	1.65	35.20
1895.									
Jan	1.86	1.90	.95	.81	.86	.95	1.50	1.60	36.20
Feb	1.89	1.90	.95	.80	.95	.95	1.50	1.55	34.50
Mar	1.89	1.95	.90	.76	.94	1.00	1.50	1.50	36.80
Apr	1.83	1.90	.90	.70	.87	.95	1.50	1.50	36.60
May	1.81	1.95	.92 $\frac{1}{2}$	.81	.97	1.10	1.50	1.60	35.40
June	1.89	2.10	1.25	1.19	1.27	1.50	1.70	1.80	36.40
July	2.00	2.15	1.70	1.43	a1.68	1.95	1.80	1.95	39.00
Aug	2.40	2.55	1.95	1.80	2.05	2.20	1.85	2.10	45.20
Sept	2.70	2.85	2.15	1.96	2.25	2.40	1.90	2.15	47.80
Oct	2.70	2.85	2.15	2.00	2.25	2.40	1.90	2.20	48.10
Nov	2.56	2.85	2.17 $\frac{1}{2}$	2.00	2.25	2.42	1.95	2.20	48.00
Dec	2.03	2.00	2.17 $\frac{1}{2}$	2.00	a2.25	2.42	1.80	2.10	48.50
1896.									
Jan	1.90	2.02 $\frac{1}{2}$	2.17	2.00	2.25	2.42	1.75	2.00	41.00
Feb	1.89	1.97 $\frac{1}{2}$	2.17	2.00	2.25	2.42	1.70	1.95	41.20
Mar	1.85	1.95	2.32	2.15	2.40	2.57	1.65	1.90	39.40
Apr	1.97	2.05	2.30	2.21	2.46	2.55	1.60	1.85	39.80
May	2.00	2.15	2.45	2.30	2.55	2.70	1.60	1.85	38.60
June	1.95	2.00	2.45	2.30	2.55	2.70	1.60	1.85	37.40
July	1.87	2.00	2.45	2.30	2.55	2.70	1.60	1.85	39.40
Aug	1.85	1.90	2.45	2.30	2.55	2.70	1.60	1.85	37.98
Sept	1.80	1.85	2.45	2.30	2.55	2.70	1.60	1.85	38.73
Oct	1.73	1.85	2.45	2.30	2.55	2.70	1.60	1.85	35.35
Nov	1.76	1.85	2.45	2.09	2.29	2.70	1.60	1.85	34.74
Dec	1.84	1.95	1.50	1.41	2.51	a1.60	1.60	1.85	34.82
1897.									
Jan	1.76	1.90	1.50	1.28	1.39	1.47	1.60	1.85	35.70
Feb	1.73	1.85	1.50	1.25	1.35	1.45	1.57 $\frac{1}{2}$	1.80	36.09
Mar	1.70	1.90	1.45	1.25	1.40	1.50	1.55	1.75	33.80
Apr	1.70	1.80	1.40	1.25	1.40	1.47	1.55	1.75	32.54
May	1.68	1.80	1.35	1.23	1.35	1.43	1.50	1.60	32.21
June	1.64	1.75	1.30	1.23	1.31	1.41	1.50	1.60	32.26
July	1.60	1.75	1.35	1.20	1.25	1.35	1.45	1.55	33.56
Aug	1.60	1.65	1.40	1.19	1.26	1.36	1.40	1.60	33.67
Sept	1.70	1.80	1.40	1.19	1.41	1.49	1.45	1.70	34.96
Oct	1.70	1.80	1.55	1.28	1.49	1.54	1.60	1.65	35.56
Nov	1.69	1.80	1.45	1.14	1.41	1.49	1.60	1.65	35.62
Dec	1.75	1.80	1.45	1.12	1.39	1.49	1.60	1.65	36.09
1898.									
Jan	1.71	1.90	1.45	1.10	1.42	1.55	1.60	1.65	35.10
Feb	1.75	1.90	1.45	1.10	1.45	1.57	1.60	1.65	33.75
Mar	1.77	1.90	1.47 $\frac{1}{2}$	1.10	1.43	1.55	1.60	1.60	33.90
Apr	1.65	1.87 $\frac{1}{2}$	1.37 $\frac{1}{2}$	1.08	1.31	1.47	1.60	1.60	27.97
May	1.66	1.80	1.35	1.08	1.31	1.45	1.50	1.60	27.92
June	1.70	1.80	1.35	1.06	1.35	1.43	1.50	1.60	27.62
July	1.70	1.80	1.35	1.06	1.31	1.36	1.50	1.60	28.37
Aug	1.65	1.80	1.35	1.05	1.26	1.36	1.50	1.60	28.64
Sept	1.67	1.80	1.35	1.08	1.32	1.43	1.55	1.60	31.46
Oct	1.71	1.82 $\frac{1}{2}$	1.35	1.10	1.33	1.46	1.55	1.60	32.44
Nov	1.71	1.82 $\frac{1}{2}$	1.35	1.10	1.28	1.39	1.55	1.60	33.42
Dec	1.60	1.82 $\frac{1}{2}$	1.35	1.10	1.27	1.37	1.55	1.60	33.83
1899.									
Jan	1.88	2.05	1.40	1.18	1.43	1.59	1.55	1.60	35.43
Feb	2.02	2.25	1.40	1.22	1.57	1.73	1.60	1.75	32.62
Mar	2.43	2.62 $\frac{1}{2}$	1.65	1.48	1.94	2.09	2.10	2.25	32.12
Apr	2.60	2.80	1.85	1.67	2.05	2.25	2.40	2.40	34.94
May	2.70	2.95	1.90	1.65	2.10	2.35	2.40	2.50	36.13
June	2.90 $\frac{1}{2}$	3.20	2.00	1.97	2.30	2.57	2.55	2.85	40.48
July	3.02 $\frac{1}{2}$	3.30	2.30	2.20	2.42 $\frac{1}{2}$	2.70	2.70	3.20	47.84
Aug	3.10	3.40	2.35	2.20	2.50	2.80	2.90	3.20	64.07
Sept	3.36 $\frac{1}{2}$	3.67 $\frac{1}{2}$	2.55	2.50	2.76 $\frac{1}{2}$	3.06	2.95	3.50	66.80
Oct	3.55	3.77 $\frac{1}{2}$	2.70	2.50	2.96	3.17	2.95	3.60	77.09
Nov	3.55	3.88	2.80	2.40	2.96	3.28	2.95	3.60	79.76
Dec	3.47 $\frac{1}{2}$	4.13	2.80	2.45	2.87 $\frac{1}{2}$	3.28	2.95	3.60	81.65

a Change of base.

TABLE V.—RELATIVE MONTHLY PRICES OF FINISHED IRON AND STEEL,
1889 TO 1899.

[The combinations controlling the most of these products were organized in December, 1898, and the first half of 1899.]

Year and month.	Bar iron, common, at Chicago.	Bar iron, best refined, from store at Philadelphia.	Bar iron at Philadelphia.	Bar iron, all muck, at Pittsburgh.	Steel tank plates at Philadelphia.	Steel beams at Philadelphia.	Steel angles at Chicago.	Skelp (plates).	Sheets, No. 27, at Chicago.
1889.									
Jan.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Feb.....	98.5	95.0	100.0	97.1	98.0	100.0	98.8	96.7	100.0
Mar.....	96.6	90.0	98.4	94.8	95.1	100.0	98.8	98.0	98.4
Apr.....	94.1	90.0	97.8	94.8	95.1	100.0	98.8	91.8	100.0
May.....	91.2	92.5	97.8	91.4	95.1	100.0	97.7	87.5	96.7
June.....	91.2	95.0	97.8	91.4	95.1	100.0	97.7	92.0	98.4
July.....	94.1	95.0	100.0	91.4	98.0	100.0	100.0	92.0	102.8
Aug.....	97.1	97.5	102.7	98.8	98.0	100.0	104.7	98.8	103.9
Sept.....	100.0	97.5	102.7	100.0	107.3	100.0	104.7	94.9	104.9
Oct.....	102.9	100.0	108.8	102.9	108.8	100.0	107.0	96.8	108.2
Nov.....	108.8	102.5	104.8	102.9	109.8	110.7	109.8	100.2	108.2
Dec.....	113.2	107.5	105.4	108.6	113.7	110.7	111.6	101.0	108.2
1890.									
Jan.....	114.7	110.0	106.5	108.6	134.1	110.7	118.6	103.7	108.2
Feb.....	111.8	110.0	108.8	108.6	126.8	110.7	118.6	99.8	108.2
Mar.....	105.9	105.0	102.7	106.7	124.4	110.7	116.3	101.4	104.9
Apr.....	102.9	105.0	102.7	106.7	119.5	110.7	109.8	103.2	101.6
May.....	100.0	105.0	100.0	100.0	114.6	110.7	104.7	101.9	98.4
June.....	105.9	100.0	98.9	102.9	114.6	110.7	104.7	99.3	103.8
July.....	105.9	95.0	98.4	102.9	117.1	110.7	107.0	99.0	103.8
Aug.....	108.8	97.5	100.0	105.7	119.5	110.7	109.8	102.8	106.6
Sept.....	111.8	100.0	100.0	105.7	119.5	110.7	109.8	103.4	106.6
Oct.....	108.8	100.0	102.7	105.7	119.5	110.7	109.8	104.5	104.9
Nov.....	105.9	100.0	102.7	105.7	119.5	110.7	109.8	103.6	108.3
Dec.....	104.4	100.0	98.9	105.7	114.6	110.7	109.8	103.0	100.0
1891.									
Jan.....	100.0	100.0	98.4	102.9	104.9	110.7	107.0	101.6	96.7
Feb.....	101.5	95.0	98.9	100.0	104.9	110.7	104.7	98.6	96.7
Mar.....	100.0	95.0	94.6	100.0	101.5	110.7	104.7	101.3	98.4
Apr.....	97.1	95.0	97.8	97.1	104.9	110.7	104.7	96.7	96.7
May.....	97.1	95.0	91.9	97.1	104.9	110.7	104.7	94.2	98.4
June.....	98.5	95.0	97.8	97.1	103.4	110.7	100.0	93.1	98.4
July.....	98.5	95.0	91.9	97.1	102.4	110.7	97.7	91.4	96.7
Aug.....	98.5	95.0	94.6	97.1	101.0	110.7	97.7	90.5	96.7
Sept.....	102.9	95.0	94.6	97.1	100.0	110.7	97.7	91.9	96.7
Oct.....	102.9	92.5	91.9	97.1	100.0	110.7	96.8	93.4	96.7
Nov.....	98.5	92.5	91.9	96.0	100.0	110.7	97.7	93.8	95.1
Dec.....	100.0	95.0	91.9	96.0	100.0	110.7	97.7	91.2	96.7
1892.									
Jan.....	97.1	92.5	92.4	97.1	91.2	110.7	93.0	89.7	95.1
Feb.....	98.5	92.5	91.9	96.0	90.2	84.3	90.7	87.9	95.1
Mar.....	95.6	92.5	91.9	92.6	90.2	80.4	90.7	87.1	98.4
Apr.....	92.6	95.0	91.9	91.4	89.8	78.6	88.4	85.3	93.4
May.....	89.7	95.0	90.8	90.8	85.9	76.8	86.0	85.3	90.2
June.....	91.2	95.0	90.8	91.4	85.4	75.0	86.0	86.8	91.8
July.....	95.6	95.0	91.9	97.1	89.8	76.8	97.7	87.4	95.1
Aug.....	97.1	95.0	94.1	96.0	97.1	82.1	97.7	90.8	96.7
Sept.....	97.1	92.5	98.0	93.7	92.7	79.8	95.3	89.9	95.1
Oct.....	95.6	92.5	91.9	95.4	92.7	78.6	93.0	89.0	96.7
Nov.....	95.6	92.5	91.9	93.7	91.2	78.6	90.7	88.5	98.4
Dec.....	95.6	90.0	89.7	91.4	90.2	73.9	88.4	93.1	96.7
1893.									
Jan.....	92.6	90.0	89.2	90.9	90.2	71.4	90.7	89.2	95.1
Feb.....	91.2	90.0	89.2	89.1	88.8	71.4	88.4	87.9	94.8
Mar.....	92.6	87.5	88.1	89.7	87.8	71.4	88.4	87.4	93.4
Apr.....	89.7	87.5	87.6	88.6	87.8	71.4	88.4	86.8	93.4
May.....	88.2	87.5	87.6	88.6	87.8	71.4	88.4	87.1	93.4
June.....	86.8	87.5	87.0	86.9	85.4	71.4	83.7	87.1	93.4
July.....	86.8	85.0	86.5	86.9	82.9	66.1	82.6	87.5	93.4
Aug.....	85.3	85.0	86.5	85.7	82.9	64.3	82.6	89.2	93.4
Sept.....	86.8	82.5	83.8	85.7	80.5	64.3	82.6	83.0	91.8
Oct.....	85.3	80.0	83.8	80.0	78.0	64.3	82.6	82.8	91.0
Nov.....	82.4	80.0	80.5	77.1	75.6	62.5	79.1	80.5	90.2
Dec.....	79.4	77.5	76.8	77.1	70.7	59.6	75.6	74.9	87.7
1894.									
Jan.....	73.5	77.5	76.2	74.8	69.3	56.8	72.1	69.8	86.9
Feb.....	70.6	75.0	75.7	71.4	65.9	53.2	62.8	68.2	82.0
Mar.....	67.6	72.5	71.9	68.6	60.5	48.2	65.1	64.1	77.0
Apr.....	64.7	70.0	64.9	68.6	58.5	46.4	62.8	63.4	75.4
May.....	61.8	65.0	64.9	71.4	59.5	46.8	62.8	70.9	77.0
June.....	61.8	65.0	64.9	71.4	64.4	50.0	67.4	68.0	78.7

TABLE V.—RELATIVE MONTHLY PRICES OF FINISHED IRON AND STEEL,
1889 TO 1899—Continued.

Year and month.	Bar iron, common, at Chicago.	Bar iron, best refined, from store at Philadelphia.	Bar iron at Philadelphia.	Bar iron, all muck, at Pittsburgh.	Steel tank plates at Philadelphia.	Steel beams at Philadelphia.	Steel angles at Chicago.	Skelp (plates).	Sheets, No. 27, at Chicago.
1894.									
July	64.7	65.0	64.9	68.6	65.9	50.0	67.4	66.9	78.7
Aug	64.7	65.0	65.9	66.9	62.0	50.0	65.1	66.6	78.7
Sept	61.8	62.5	67.0	66.9	63.4	48.2	65.1	65.6	77.0
Oct	58.8	62.5	62.7	65.7	62.9	46.4	65.1	59.8	77.0
Nov	61.8	60.0	62.2	65.7	60.5	46.4	65.1	60.0	77.0
Dec	61.8	62.5	60.0	62.9	61.0	46.4	65.1	59.8	75.4
1895.									
Jan	61.8	60.0	59.5	62.9	61.0	46.4	60.5	60.4	77.0
Feb	58.8	60.0	62.2	62.9	59.0	46.4	60.5	61.0	75.4
Mar	58.8	62.5	62.2	62.9	58.5	46.4	60.5	60.9	73.8
Apr	64.7	65.0	62.2	62.9	58.5	46.4	58.1	59.4	72.1
May	64.7	67.5	62.2	64.0	60.5	46.8	60.5	61.4	75.4
June	70.6	67.5	62.7	69.7	67.8	51.1	69.8	69.7	82.0
July	76.5	80.0	69.2	75.4	82.0	58.9	74.4	76.0	86.9
Aug	82.4	85.0	81.1	77.7	88.3	59.3	81.4	78.2	93.4
Sept	88.2	85.0	78.9	82.3	95.1	65.0	81.4	83.4	95.1
Oct	88.2	80.0	77.8	81.1	88.3	62.5	81.4	81.5	91.8
Nov	88.2	80.0	75.7	80.0	82.0	62.9	81.4	76.4	86.9
Dec	82.4	72.5	71.9	78.3	73.2	60.4	74.4	76.6	82.0
1896.									
Jan	76.5	72.5	66.5	71.4	69.8	57.1	69.8	70.8	80.3
Feb	79.4	70.0	67.0	71.4	68.3	53.6	69.8	71.6	78.7
Mar	76.5	67.5	66.5	69.1	68.3	55.4	67.4	68.7	73.8
Apr	76.5	70.0	63.8	68.6	70.2	57.1	67.4	73.7	73.8
May	76.5	70.0	64.9	68.6	70.7	60.0	67.4	72.4	77.0
June	76.5	70.0	64.9	68.6	68.3	60.7	67.4	72.0	75.4
July	76.5	70.0	64.9	68.6	67.3	62.9	62.8	73.5	75.4
Aug	76.5	70.0	65.4	68.6	65.9	60.7	62.8	75.2	73.8
Sept	76.5	70.0	64.9	68.6	63.9	60.7	60.5	68.9	72.1
Oct	76.5	70.0	64.9	68.6	62.0	60.7	60.5	66.9	72.1
Nov	67.6	70.0	64.9	69.7	61.0	60.7	60.5	64.4	73.8
Dec	73.5	70.0	62.2	71.4	60.0	57.9	62.8	61.4	72.1
1897.									
Jan	73.5	70.0	62.2	69.7	58.5	60.7	58.1	57.1	70.5
Feb	73.5	70.0	62.2	68.6	58.5	60.7	58.1	57.6	69.7
Mar	66.2	70.0	61.6	68.6	58.5	60.7	58.1	53.2	68.0
Apr	61.8	62.5	62.2	65.1	58.5	60.7	56.8	52.9	66.4
May	61.8	62.5	59.5	59.4	54.1	53.2	53.5	51.5	65.6
June	58.8	62.5	57.8	56.6	53.7	44.6	53.5	51.2	62.8
July	63.2	62.5	58.4	54.3	53.7	41.1	51.2	51.2	63.9
Aug	64.7	62.5	58.4	56.6	52.7	41.1	52.3	51.5	67.2
Sept	64.7	62.5	61.6	61.1	55.6	41.1	54.7	53.9	67.2
Oct	67.6	67.5	64.3	65.7	56.1	42.9	55.8	58.8	70.5
Nov	64.7	67.5	64.9	65.7	55.6	42.9	55.8	56.9	72.1
Dec	64.7	67.5	62.2	65.7	55.1	42.9	55.8	53.4	70.5
1898.									
Jan	61.8	70.0	60.0	65.7	53.7	46.4	60.5	53.8	68.9
Feb	61.8	67.5	60.0	65.7	53.7	46.4	53.5	54.1	68.0
Mar	61.8	67.5	57.3	60.0	52.7	46.4	53.5	53.6	67.2
Apr	63.2	62.5	56.8	60.0	54.6	46.4	60.5	54.0	65.6
May	64.7	62.5	56.8	60.0	59.0	46.4	58.1	52.5	67.2
June	66.2	62.5	56.8	60.0	60.0	46.4	55.8	52.3	63.9
July	60.3	62.5	54.1	60.0	58.5	46.4	55.8	52.3	63.9
Aug	61.8	62.5	57.3	60.0	60.0	48.9	60.5	52.6	65.6
Sept	61.8	62.5	61.6	61.7	62.0	50.0	60.5	56.3	67.2
Oct	61.8	62.5	61.1	62.9	62.0	49.3	60.5	55.6	65.6
Nov	60.3	62.5	59.5	59.4	61.0	48.2	60.5	55.3	65.6
Dec	61.8	62.5	60.0	57.1	61.5	48.2	60.5	55.0	63.9
1899.									
Jan	61.8	65.0	62.2	64.0	65.9	50.0	65.1	56.1	65.6
Feb	67.6	72.5	64.9	69.7	75.6	50.7	65.1	59.6	77.0
Mar	85.3	85.0	76.2	78.9	92.2	55.4	72.1	69.6	80.3
Apr	92.6	87.5	81.1	94.3	106.3	58.6	81.4	82.0	91.8
May	95.6	95.0	84.3	100.0	108.8	58.2	81.4	92.3	96.7
June	105.9	100.0	97.8	107.4	121.0	65.0	85.4	108.0	100.0
July	108.8	115.0	108.1	114.3	129.3	76.8	100.0	116.0	103.3
Aug	117.6	120.0	108.1	130.3	136.6	85.7	104.7	125.1	104.9
Sept	132.4	125.0	113.5	142.9	146.8	85.7	111.6	120.3	106.6
Oct	135.3	125.0	113.5	148.6	146.8	85.7	111.6	124.6	108.3
Nov	135.3	125.0	118.9	146.8	129.3	85.7	111.6	116.5	101.6
Dec	135.3	125.0	110.8	142.9	117.1	85.7	111.6	101.4	98.4

TABLE V.—RELATIVE MONTHLY PRICES OF FINISHED IRON AND STEEL,
1899 TO 1899—Continued.

Year and month.	Barbed wire, galvanized, at mill.	Barbed wire at Chicago. (a)	Cut steel nails at Chicago.	Cut nails at Pittsburgh.	Wire nails at New York.	Wire nails at Chicago.	Machinery steel, open hearth, at Chicago.	Spring steel at Chicago.	Black merchant pipe, 1 in. to 3 in.
1899.									
Jan.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Feb.	100.8	98.2	102.6	99.5	100.4	94.1	97.9	95.7	91.9
Mar.	99.1	96.4	100.0	100.0	99.3	92.2	97.9	95.7	92.7
Apr.	98.0	96.4	100.0	99.5	111.4	92.2	102.1	108.7	98.8
May	98.0	94.6	97.4	97.3	105.7	90.2	102.1	108.7	90.5
June	(b)	94.6	94.9	96.8	96.3	90.2	104.3	108.7	95.6
July	(b)	94.6	94.9	97.9	96.3	90.2	104.3	108.7	101.1
Aug.	(b)	94.6	94.9	99.5	96.3	88.2	114.9	97.8	102.2
Sept.	92.4	98.2	102.6	101.1	98.3	92.2	114.9	100.0	102.9
Oct.	106.4	108.9	123.1	109.0	115.7	100.0	114.9	108.7	104.8
Nov.	109.2	112.5	123.1	119.7	131.0	123.5	117.0	110.9	116.1
Dec.	109.2	116.1	129.5	119.7	131.0	117.6	119.1	115.2	117.6
1890.									
Jan.	112.0	116.1	128.2	125.0	124.5	113.7	121.3	123.9	121.6
Feb.	112.0	119.6	123.1	119.7	124.5	115.7	119.1	123.9	112.1
Mar.	111.2	117.9	117.9	119.7	120.6	107.8	117.0	119.6	113.2
Apr.	(b)	112.5	107.7	101.1	108.6	94.1	117.0	121.7	116.5
May	88.9	108.6	94.9	85.1	96.9	90.2	114.9	121.7	115.8
June	91.0	101.8	100.0	106.4	98.8	94.1	110.6	113.0	113.6
July	92.0	101.8	102.6	100.0	100.4	94.1	110.6	113.0	112.5
Aug.	(b)	101.8	102.6	98.4	105.3	98.0	112.8	113.0	112.1
Sept.	93.0	101.8	100.0	98.4	104.3	100.0	112.8	123.9	112.8
Oct.	92.2	101.8	100.0	98.4	100.0	94.1	112.8	123.9	115.8
Nov.	87.2	98.2	94.9	97.3	97.2	90.2	112.8	117.4	113.2
Dec.	84.0	96.4	89.7	96.8	93.3	88.2	112.8	117.4	114.7
1891.									
Jan.	91.0	96.4	89.7	85.1	92.6	87.1	106.4	108.7	112.8
Feb.	86.8	96.4	89.7	86.2	93.9	89.0	102.1	108.7	111.7
Mar.	95.2	101.8	92.3	87.8	93.9	87.1	102.1	108.7	113.6
Apr.	98.0	101.8	89.7	82.4	90.8	83.1	97.9	108.7	108.8
May	98.0	100.9	87.2	85.1	87.3	80.4	97.9	108.7	102.6
June	98.0	98.2	87.2	85.1	85.2	79.2	97.9	104.3	101.5
July	98.0	96.4	84.6	85.1	87.3	81.2	97.9	104.3	97.4
Aug.	91.0	99.1	87.2	82.4	85.2	79.2	97.9	104.3	98.2
Sept.	91.0	100.0	87.2	85.1	80.8	78.4	95.7	97.8	99.6
Oct.	85.4	91.1	84.6	85.1	79.5	74.5	97.9	97.8	98.9
Nov.	85.4	91.1	84.6	85.1	74.7	72.5	97.9	97.8	100.7
Dec.	85.4	91.1	84.6	84.0	73.4	70.6	95.7	97.8	96.0
1892.									
Jan.	85.4	92.9	83.3	82.4	72.9	71.4	91.5	90.2	92.8
Feb.	77.6	87.5	83.3	79.3	74.7	73.3	91.5	91.3	90.5
Mar.	74.2	85.7	83.3	79.8	75.5	72.5	90.4	92.4	89.0
Apr.	74.2	82.1	82.1	82.4	72.5	68.6	90.4	92.4	87.5
May	74.2	82.1	82.1	78.7	69.9	66.7	90.4	92.4	86.8
June	74.2	82.1	83.3	78.2	65.5	61.6	90.4	92.4	88.8
July	73.4	82.1	82.1	79.8	68.6	66.7	90.4	92.4	86.1
Aug.	73.4	78.6	83.3	79.8	70.3	66.7	89.4	91.3	87.5
Sept.	72.8	78.6	83.3	80.3	68.6	65.5	88.3	90.2	88.8
Oct.	70.6	76.8	83.3	79.8	65.5	61.6	89.4	91.3	91.6
Nov.	67.5	76.8	82.1	79.3	64.2	62.7	87.2	89.1	91.9
Dec.	67.8	75.0	82.1	77.1	63.8	62.7	87.2	89.1	94.9
1893.									
Jan.	66.4	85.7	82.1	75.5	59.8	61.6	89.4	91.3	92.8
Feb.	67.2	85.7	82.1	75.5	60.7	60.8	89.4	91.3	90.1
Mar.	67.8	87.5	73.1	61.2	65.5	64.7	89.4	91.3	89.4
Apr.	68.6	87.5	69.2	61.2	67.7	64.7	89.4	91.3	87.9
May	68.6	87.5	67.9	58.5	65.9	62.7	85.1	91.3	85.0
June	68.6	87.5	64.1	55.9	60.7	58.8	83.0	91.3	86.8
July	68.6	87.5	62.8	55.9	59.0	57.6	83.0	89.1	93.8
Aug.	68.6	87.5	62.8	55.9	62.9	57.6	83.0	89.1	92.7
Sept.	67.2	83.9	62.8	53.2	63.3	57.6	83.0	87.0	85.0
Oct.	63.3	80.4	62.8	53.2	56.8	54.9	83.0	84.8	86.4
Nov.	60.2	76.8	61.5	58.2	51.5	51.0	83.0	84.8	86.1
Dec.	58.8	75.0	60.3	53.2	43.9	49.8	83.0	84.8	85.2
1894.									
Jan.	57.4	80.4	59.0	50.5	43.0	45.9	80.9	84.8	79.5
Feb.	58.5	80.4	53.8	52.7	47.6	47.1	80.9	82.6	76.8
Mar.	60.2	82.1	52.6	52.7	47.6	45.1	76.6	82.6	71.8
Apr.	58.8	78.6	51.3	48.4	41.0	39.2	74.5	80.4	69.0
May	57.4	76.8	48.7	47.9	45.9	42.0	74.5	80.4	68.9
June	58.0	78.6	48.7	50.0	48.5	47.1	74.5	80.4	68.9
July	57.4	80.4	51.3	50.5	49.8	47.1	72.3	80.4	68.9
Aug.	56.9	80.4	48.7	47.9	46.7	45.1	70.2	80.4	71.4
Sept.	56.0	78.6	48.7	47.9	43.2	43.1	68.1	73.3	69.6
Oct.	55.7	76.8	46.2	45.2	43.2	41.2	66.0	76.1	71.1
Nov.	53.2	71.4	46.2	45.7	40.2	41.2	66.0	76.1	65.2
Dec.	51.8	69.6	46.2	42.6	37.1	39.2	66.0	71.7	64.5

a See note a, page 819.

b Not reported.

TABLE V.—RELATIVE MONTHLY PRICES OF FINISHED IRON AND STEEL,
1889 TO 1899—Concluded.

Year and month.	Barbed wire, galvanized, at mill.	Barbed wire at Chicago.	Cut steel nails at Chicago.	Cut nails at Pittsburgh.	Wire nails at New York.	Wire nails at Chicago.	Machinery steel, open hearth, at Chicago.	Spring steel at Chicago.	Black merchant pipe, $\frac{1}{2}$ in. to 8 in.
1889.									
Jan.	52.1	67.9	48.7	43.1	37.6	37.3	63.8	69.6	66.3
Feb.	52.9	67.9	48.7	42.6	39.3	37.3	63.8	67.4	68.2
Mar.	52.9	69.6	46.2	40.4	41.0	39.2	63.8	65.2	67.4
Apr.	51.8	67.9	46.2	37.2	38.0	37.3	63.8	65.2	67.0
May.	50.7	69.6	47.4	43.1	42.4	43.1	63.8	69.6	64.8
June.	52.9	75.0	64.1	63.3	55.5	58.8	72.3	78.3	66.7
July.	56.0	76.8	87.2	76.1	73.4	76.5	76.6	84.8	71.4
Aug.	67.2	91.1	100.0	96.7	89.5	86.3	78.7	91.3	82.8
Sept.	75.6	101.8	110.3	104.8	98.3	94.1	80.9	98.5	87.6
Oct.	75.6	101.8	110.3	106.4	98.3	94.1	80.9	96.7	88.1
Nov.	71.7	101.8	111.5	106.4	98.3	94.9	83.0	96.7	87.9
Dec.	56.9	71.4	111.5	106.4	98.3	94.9	76.6	91.3	88.8
1890.									
Jan.	53.2	72.3	111.3	106.4	98.3	94.9	74.5	87.0	75.1
Feb.	52.9	70.5	111.3	106.4	98.3	94.9	72.3	84.8	75.5
Mar.	51.8	69.6	119.0	114.4	104.8	100.8	70.2	82.6	72.2
Apr.	55.2	78.2	117.9	117.6	107.4	100.0	68.1	80.4	72.9
May.	56.0	76.8	125.6	122.3	111.4	105.9	68.1	80.4	70.7
June.	54.6	71.4	125.6	122.3	111.4	105.9	68.1	80.4	68.5
July.	52.4	71.4	125.6	122.3	111.4	105.9	68.1	80.4	72.2
Aug.	51.8	67.9	125.6	122.3	111.4	105.9	68.1	80.4	69.5
Sept.	50.4	66.1	125.6	122.3	111.4	105.9	68.1	80.4	61.8
Oct.	48.5	66.1	125.6	122.3	111.4	105.9	68.1	80.4	64.7
Nov.	49.3	66.1	125.6	111.2	100.0	105.9	68.1	80.4	63.6
Dec.	51.5	69.6	76.9	75.0	109.6	62.7	68.1	80.4	63.8
1897.									
Jan.	49.3	67.9	76.9	68.1	60.7	57.6	68.1	80.4	65.4
Feb.	48.5	66.1	76.9	66.5	59.0	56.9	67.0	78.8	66.1
Mar.	47.6	67.9	74.4	66.5	61.1	58.8	66.0	76.1	61.9
Apr.	47.6	64.3	71.8	66.5	61.1	57.6	66.0	76.1	59.6
May.	47.1	64.3	69.2	65.4	59.0	56.1	63.8	69.6	59.0
June.	45.9	62.5	66.7	65.4	57.2	55.3	63.8	69.6	59.1
July.	44.8	62.5	69.2	63.8	54.6	52.9	61.7	67.4	61.5
Aug.	44.8	58.9	71.8	63.3	55.0	53.3	59.6	69.6	61.7
Sept.	47.6	64.3	71.8	63.3	61.6	58.4	61.7	73.9	64.1
Oct.	47.6	64.3	79.5	68.1	65.1	60.4	68.1	71.7	65.2
Nov.	47.3	64.3	74.4	60.6	61.6	58.4	68.1	71.7	65.2
Dec.	49.0	64.3	74.4	59.6	60.7	58.4	68.1	71.7	66.1
1898.									
Jan.	47.9	67.9	74.4	58.5	62.0	60.8	68.1	71.7	64.3
Feb.	49.0	67.9	74.4	58.5	63.3	61.6	68.1	71.7	61.8
Mar.	49.6	67.9	75.6	58.5	62.4	60.8	68.1	69.6	62.1
Apr.	46.2	67.0	70.5	57.4	57.2	57.6	68.1	69.6	51.2
May.	46.5	64.8	69.2	57.4	57.2	56.9	68.8	69.6	51.1
June.	47.6	64.8	69.2	56.4	59.0	56.1	63.8	69.6	50.6
July.	47.6	64.3	69.2	56.4	57.2	53.3	63.8	69.6	52.0
Aug.	46.2	64.8	69.2	55.9	55.0	53.3	63.8	69.6	52.5
Sept.	46.8	64.8	69.2	57.4	57.6	56.1	66.0	69.6	57.6
Oct.	47.9	65.2	69.2	58.5	58.1	57.3	66.0	69.6	59.4
Nov.	47.9	65.2	69.2	58.5	55.9	54.5	66.0	69.6	61.2
Dec.	44.8	65.2	69.2	58.5	55.5	53.7	66.0	69.6	62.0
1899.									
Jan.	52.7	73.2	71.8	62.8	62.4	62.4	66.0	69.6	64.9
Feb.	56.6	80.4	71.8	64.9	68.6	67.8	68.1	76.1	59.7
Mar.	68.1	98.8	84.6	78.7	84.7	82.0	89.4	97.8	58.8
Apr.	72.8	100.0	94.9	88.8	89.5	88.2	102.1	104.3	64.0
May.	75.6	106.4	97.4	87.8	91.7	92.2	102.1	108.7	66.2
June.	81.4	114.3	102.6	104.8	100.4	100.8	108.5	123.9	74.1
July.	84.7	117.9	117.9	117.0	105.9	105.9	114.9	139.1	87.6
Aug.	86.8	121.4	120.5	117.0	109.2	109.8	123.4	139.1	117.3
Sept.	94.3	131.3	130.8	133.0	120.7	120.0	125.6	152.2	122.3
Oct.	99.4	134.8	138.5	133.0	128.8	124.3	125.6	156.5	141.2
Nov.	99.4	138.6	143.6	127.7	128.8	128.6	125.6	156.5	146.1
Dec.	97.3	147.5	143.6	130.3	125.6	128.6	125.6	156.5	149.5

TABLE VI.—MONTHLY PRICES OF OLD MATERIAL, COAL, AND COKE, 1889 TO 1899.

[The prices of coal and Pennsylvania coke are from the Chicago Board of Trade, of Connellsville coke from the Geological Survey; other prices are from the Iron Age. The combinations controlling the most of these products were organized in 1898 and the first half of 1899.]

Year and month.	Old iron rails at Chicago, per 2,240 lbs.	Scrap, No. 1, mill, at Chicago, per 2,000 lbs.	Scrap, cast, at Chicago, per 2,000 lbs.	Coal, Young-hogheny, at Chicago, per 2,000 lbs.	Coke, Connellsville, f. o. b. at ovona, per 2,000 lbs.	Coke, Pennsylvan-ia, at Chicago, per 2,000 lbs.
1889.						
January.....	\$21.50	\$14.00	\$13.50	\$3.28	\$1.25	\$4.25
February.....	20.50	14.00	13.25	3.28	1.25	4.25
March.....	21.00	14.00	13.00	3.18	1.25	4.25
April.....	20.00	13.50	12.50	3.18	1.15	4.25
May.....	19.50	13.00	11.50	3.13	1.10	4.15
June.....	20.00	13.00	11.00	3.13	1.10	4.00
July.....	21.50	14.00	11.50	3.13	1.05	3.95
August.....	22.50	14.25	12.00	3.13	1.10	3.95
September.....	24.50	14.50	12.00	3.13	1.37½	4.40
October.....	25.25	16.00	13.00	3.13	1.50	4.40
November.....	26.00	17.00	13.50	3.23	1.75	4.55
December.....	26.25	17.50	14.50	3.23	1.75	4.80
1890.						
January.....	26.00	16.50	14.00	3.23	1.75	4.95
February.....	25.00	16.50	13.50	3.23	1.75	5.35
March.....	23.75	15.50	13.50	3.23	2.15	5.20
April.....	23.00	14.50	13.00	3.23	2.15	5.20
May.....	22.50	14.00	13.00	3.08	2.15	5.20
June.....	25.00	15.50	13.00	3.28	2.15	5.20
July.....	26.00	16.00	13.00	3.23	2.15	5.20
August.....	26.50	16.50	14.00	3.28	2.15	5.20
September.....	27.00	16.50	13.50	3.35	2.15	5.20
October.....	26.50	16.00	13.50	3.35	2.15	5.20
November.....	25.50	15.50	13.50	3.35	2.15	5.20
December.....	23.50	14.50	13.00	3.40	2.15	5.20
1891.						
January.....	23.00	14.00	12.50	3.30	1.90	5.05
February.....	23.00	13.75	12.50	3.30	1.90	5.05
March.....	23.25	13.75	12.25	3.30	1.90	5.05
April.....	22.75	13.50	12.00	3.30	1.90	5.05
May.....	22.75	13.50	12.00	3.30	1.90	5.05
June.....	22.75	13.75	12.25	3.25	1.90	5.05
July.....	23.25	14.25	12.00	3.25	1.90	5.05
August.....	23.00	14.50	12.75	3.25	1.90	5.05
September.....	23.00	14.25	12.25	3.40	1.85	5.05
October.....	22.25	13.75	12.25	3.40	1.85	5.05
November.....	22.00	13.25	12.00	3.75	1.80	5.05
December.....	21.75	12.50	12.00	3.75	1.80	5.05
1892.						
January.....	22.00	12.50	12.00	3.40	1.90	5.05
February.....	21.75	12.50	12.50	3.40	1.90	5.05
March.....	20.00	11.50	12.00	3.35	1.90	5.05
April.....	19.50	11.00	11.50	3.35	1.90	5.05
May.....	18.50	10.50	11.50	3.25	1.80	5.05
June.....	18.25	10.00	11.50	3.25	1.80	5.05
July.....	18.00	11.00	11.50	3.25	1.75	5.05
August.....	18.00	11.00	11.50	3.25	1.75	5.05
September.....	17.75	11.00	11.50	3.35	1.75	5.05
October.....	18.25	11.00	11.50	3.35	1.75	5.05
November.....	18.50	11.00	11.50	3.45	1.75	5.05
December.....	18.75	11.00	11.50	3.50	1.75	5.05
1893.						
January.....	18.50	10.75	11.25	3.50	1.90	5.05
February.....	18.50	10.75	11.25	3.50	1.90	5.05
March.....	18.25	10.75	11.25	3.50	1.90	5.05
April.....	17.75	10.50	11.25	3.41	1.70	5.05
May.....	17.50	10.00	11.00	3.35	1.60	5.05
June.....	17.00	9.00	10.25	3.35	1.50	5.05
July.....	16.00	9.00	10.00	3.25	1.45	5.05
August.....	15.00	8.50	9.00	3.25	1.25	5.05
September.....	14.50	8.00	8.00	3.25	1.20	4.50
October.....	14.50	8.00	8.50	3.25	1.20	4.50
November.....	14.50	8.00	9.50	3.25	1.10	4.20
December.....	14.00	8.00	9.50	3.25	1.05	4.20
1894.						
January.....	13.00	8.25	8.75	3.25	.97½	4.20
February.....	12.00	6.75	7.75	3.25	.95	4.20
March.....	10.50	6.75	7.50	3.20	1.00	4.20
April.....	10.00	6.50	7.50	3.15	.92	3.90
May.....	10.00	6.50	7.25	3.10	.92	3.90
June.....	9.75	6.50	7.25	3.10	1.00	3.90

TABLE VI.—MONTHLY PRICES OF OLD MATERIAL, COAL, AND COKE,
1889 TO 1899—Concluded.

Year and month.	Old iron rails at Chicago, per 2,240 lbs.	Scrap, No. 1, mill, at Chi- cago, per 2,000 lbs.	Scrap, cast, at Chicago, per 2,000 lbs.	Coal, Young- brosen 7, at Chicago, per 2,000 lbs.	Coke, Con- nellsville, f. o. b. at ovens, per 2,000 lbs.	Coke, Penn- sylvania, at Chicago, per 2,000 lbs.
1894.						
July	\$10. 75	\$6. 50	\$7. 25	\$3. 10	\$1. 00	\$3. 90
August	10. 50	6. 50	7. 25	3. 10	2. 00	3. 90
September	11. 00	7. 00	7. 25	3. 10	1. 40	3. 90
October	11. 00	7. 00	7. 50	3. 10	1. 00	3. 90
November	10. 75	7. 00	7. 50	3. 10	1. 01	3. 90
December	10. 75	7. 00	7. 50	3. 10	1. 00	3. 90
1895.						
January	10. 25	6. 50	7. 50	2. 90	1. 00	3. 90
February	10. 50	6. 50	7. 00	2. 90	1. 00	3. 90
March	11. 00	6. 50	7. 00	2. 90	1. 00	3. 90
April	11. 25	6. 50	7. 00	2. 90	1. 35	4. 15
May	12. 00	7. 00	7. 00	2. 90	1. 35	4. 15
June	13. 50	7. 50	7. 75	2. 90	1. 35	4. 15
July	15. 00	8. 00	8. 00	2. 90	1. 35	4. 15
August	16. 00	9. 00	9. 25	2. 90	1. 35	4. 15
September	18. 50	10. 00	9. 50	8. 00	1. 35	4. 15
October	18. 50	9. 00	9. 50	3. 00	1. 60	4. 65
November	17. 00	8. 00	10. 50	3. 00	1. 60	4. 85
December	16. 00	7. 50	10. 50	3. 00	1. 60	4. 85
1896.						
January	14. 50	6. 50	9. 50	2. 90	1. 87½	5. 15
February	14. 00	7. 00	9. 25	2. 90	1. 87½	5. 15
March	14. 00	7. 50	9. 25	2. 90	1. 87½	5. 15
April	15. 00	7. 75	9. 50	2. 90	1. 87½	4. 80
May	13. 00	7. 50	9. 25	2. 90	1. 87½	4. 80
June	13. 00	7. 00	8. 50	2. 80	1. 87½	4. 80
July	13. 25	6. 75	8. 25	2. 78	1. 87½	4. 55
August	12. 00	6. 50	7. 50	2. 90	1. 87½	4. 55
September	11. 25	6. 00	7. 00	2. 90	1. 87½	4. 55
October	13. 00	6. 50	7. 50	2. 75	1. 87½	4. 55
November	14. 50	7. 50	8. 25	2. 75	1. 87½	4. 55
December	14. 00	7. 50	8. 00	2. 75	1. 87½	4. 55
1897.						
January	12. 00	7. 00	7. 00	2. 70	1. 87½	4. 55
February	13. 00	7. 00	7. 00	2. 70	1. 97½	4. 55
March	11. 75	7. 00	7. 25	2. 70	1. 62½	4. 55
April	11. 50	6. 75	7. 50	2. 70	1. 55	4. 55
May	11. 00	6. 00	7. 00	2. 70	1. 40	4. 55
June	10. 50	6. 50	7. 00	2. 70	1. 50	4. 55
July	11. 00	5. 75	7. 25	.....	1. 50	4. 55
August	11. 00	5. 75	7. 25	.....	1. 50	4. 55
September	12. 00	6. 50	7. 25	.....	1. 45	4. 55
October	12. 25	7. 00	7. 50	2. 70	1. 62½	4. 55
November	12. 00	6. 50	7. 50	2. 70	1. 75	4. 55
December	12. 00	6. 50	7. 50	2. 70	1. 75	4. 55
1898.						
January	12. 25	6. 50	7. 50	2. 75	1. 75	4. 55
February	12. 25	6. 75	8. 25	2. 75	1. 75	4. 55
March	12. 00	7. 00	8. 00	2. 75	1. 75	4. 40
April	12. 00	7. 00	8. 50	2. 75	1. 75	4. 40
May	12. 25	6. 50	8. 75	2. 75	1. 75	4. 40
June	12. 37½	6. 50	8. 00	2. 75	1. 75	4. 40
July	12. 50	6. 50	7. 75	2. 75	1. 75	4. 40
August	12. 50	6. 50	8. 00	2. 75	1. 75	4. 40
September	12. 62½	6. 62½	8. 25	2. 75	1. 75	4. 40
October	12. 75	6. 75	8. 25	2. 75	1. 50	4. 50
November	12. 75	6. 25	8. 25	2. 75	1. 50	4. 40
December	12. 50	6. 75	8. 25	2. 75	1. 60	4. 40
1899.						
January	13. 00	7. 00	8. 25	2. 45	1. 60	4. 55
February	14. 00	7. 75	9. 00	2. 45	1. 60	4. 55
March	16. 25	8. 75	11. 50	2. 45	1. 75	4. 55
April	18. 00	9. 00	12. 00	2. 45	1. 75	4. 55
May	18. 00	9. 00	11. 50	2. 45	2. 05	4. 55
June	18. 00	8. 75	11. 50	2. 45	2. 20	4. 55
July	18. 75	8. 50	12. 00	2. 45	2. 12½	4. 75
August	21. 00	9. 00	12. 50	2. 50	2. 50	4. 75
September	27. 50	13. 00	15. 00	2. 50	2. 62½	5. 25
October	30. 00	14. 50	16. 00	2. 75	2. 75	5. 50
November	30. 00	13. 50	15. 50	3. 00	2. 87½	5. 50
December	27. 00	13. 00	14. 00	3. 00	2. 87½	5. 75

TABLE VII.—RELATIVE MONTHLY PRICES OF OLD MATERIAL, COAL, AND COKE, 1889 TO 1899.

[The combinations controlling the most of these products were organized in 1896 and the first half of 1899.]

Year and month.	Old iron rails at Chicago.	Scrap, No. 1, mill, at Chicago.	Scrap, cast, at Chicago.	Coal, Youghiogheny, at Chicago.	Coke, Connellsville, f. o. b. at ovens.	Coke, Pennsylvania, at Chicago.
1889.						
January.....	100.0	100.0	100.0	100.0	100.0	100.0
February.....	95.3	100.0	98.1	100.0	100.0	100.0
March.....	97.7	100.0	96.3	97.0	100.0	100.0
April.....	98.0	96.4	92.6	97.0	92.0	100.0
May.....	90.7	92.9	85.2	95.4	88.0	97.6
June.....	93.0	92.9	81.5	95.4	88.0	94.1
July.....	100.0	100.0	85.2	95.4	84.0	92.9
August.....	104.7	101.8	88.9	95.4	88.0	92.9
September.....	114.0	103.6	88.9	95.4	110.0	103.5
October.....	117.4	114.3	96.3	95.4	120.0	103.5
November.....	120.9	121.4	100.0	98.5	140.0	107.1
December.....	122.1	125.0	107.4	98.5	140.0	112.9
1890.						
January.....	120.9	117.9	103.7	98.5	140.0	116.5
February.....	116.3	117.9	100.0	98.5	140.0	125.9
March.....	110.5	110.7	100.0	98.5	172.0	122.4
April.....	107.0	103.6	96.3	98.5	172.0	122.4
May.....	104.7	100.0	96.3	93.9	172.0	122.4
June.....	116.3	110.7	96.3	100.0	172.0	122.4
July.....	120.9	114.3	96.3	100.0	172.0	122.4
August.....	123.3	117.9	103.7	100.0	172.0	122.4
September.....	125.6	117.9	100.0	102.1	172.0	122.4
October.....	123.3	114.3	100.0	102.1	172.0	122.4
November.....	118.6	110.7	100.0	102.1	172.0	122.4
December.....	109.3	108.6	96.3	103.7	172.0	122.4
1891.						
January.....	107.0	100.0	92.6	100.6	152.0	118.8
February.....	107.0	98.2	92.6	100.6	152.0	118.8
March.....	108.1	96.2	90.7	100.6	152.0	118.8
April.....	106.8	96.4	88.9	100.6	152.0	118.8
May.....	106.8	96.4	88.9	100.6	152.0	118.8
June.....	106.8	98.2	90.7	99.1	152.0	118.8
July.....	108.1	101.8	88.9	99.1	152.0	118.8
August.....	107.0	103.6	94.4	99.1	152.0	118.8
September.....	107.0	101.8	90.7	103.7	148.0	118.8
October.....	103.5	98.2	90.7	103.7	148.0	118.8
November.....	102.3	94.6	88.9	114.3	144.0	118.8
December.....	101.2	89.3	88.9	114.3	144.0	118.8
1892.						
January.....	102.3	89.3	88.9	103.7	152.0	118.8
February.....	101.2	89.3	92.6	103.7	152.0	118.8
March.....	93.0	82.1	88.9	102.1	152.0	118.8
April.....	90.7	78.6	85.2	102.1	152.0	118.8
May.....	86.0	75.0	85.2	99.1	144.0	118.8
June.....	84.9	71.4	85.2	99.1	144.0	118.8
July.....	83.7	78.6	85.2	99.1	140.0	118.8
August.....	83.7	78.6	85.2	99.1	140.0	118.8
September.....	82.6	78.6	85.2	102.1	140.0	118.8
October.....	84.9	78.6	85.2	102.1	140.0	118.8
November.....	86.0	78.6	85.2	105.2	140.0	118.8
December.....	87.2	78.6	85.2	105.7	140.0	118.8
1893.						
January.....	86.0	76.8	83.3	106.7	152.0	118.8
February.....	86.0	76.8	83.3	106.7	152.0	118.8
March.....	84.9	76.8	83.3	106.7	152.0	118.8
April.....	82.6	75.0	83.3	104.0	136.0	118.8
May.....	81.4	71.4	81.5	102.1	128.0	118.8
June.....	79.1	64.3	75.9	102.1	120.0	118.8
July.....	74.4	64.3	74.1	99.1	116.0	118.8
August.....	69.8	60.7	66.7	99.1	100.0	118.8
September.....	67.4	57.1	59.3	99.1	96.0	106.9
October.....	67.4	57.1	63.0	99.1	96.0	106.9
November.....	67.4	57.1	70.4	99.1	88.0	98.8
December.....	65.1	57.1	70.4	99.1	84.0	98.8
1894.						
January.....	60.5	58.9	64.8	99.1	78.0	98.8
February.....	56.8	48.2	57.4	99.1	76.0	98.8
March.....	48.8	48.2	55.6	97.6	80.0	98.8
April.....	46.5	46.4	55.6	96.0	73.6	91.8
May.....	46.5	46.4	53.7	94.5	73.6	91.8
June.....	45.3	46.4	53.7	94.5	80.0	91.8
July.....	50.0	46.4	53.7	94.5	80.0	91.8
August.....	48.8	46.4	53.7	94.5	160.0	91.8
September.....	51.2	50.0	53.7	94.5	112.0	91.8
October.....	51.2	50.0	55.6	94.5	80.0	91.8
November.....	50.0	50.0	55.6	94.5	80.8	91.8
December.....	50.0	50.0	55.6	94.5	80.0	91.8

TABLE VII.—RELATIVE MONTHLY PRICES OF OLD MATERIAL, COAL, AND COKE, 1889 TO 1899—Concluded.

Year and month.	Old iron rails at Chicago.	Scrap, No. 1, mfl, at Chicago.	Scrap, cast, at Chicago.	Coal, Youghio- gheny, at Chicago.	Coke, Con- nellsville, f. o. b. at ovens.	Coke, Pennsylva- nia, at Chicago.
1896.						
January.....	47.7	46.4	55.6	88.4	80.0	91.8
February.....	48.8	46.4	51.9	88.4	80.0	91.8
March.....	51.2	46.4	51.9	88.4	80.0	91.8
April.....	52.3	46.4	51.9	88.4	108.0	97.6
May.....	55.8	50.0	51.9	88.4	108.0	97.6
June.....	62.8	53.6	57.4	88.4	108.0	97.6
July.....	69.8	57.1	59.3	88.4	108.0	97.6
August.....	74.4	64.3	68.5	88.4	108.0	97.6
September.....	86.0	71.4	70.4	91.5	108.0	97.6
October.....	86.0	64.3	70.4	91.5	128.0	109.4
November.....	79.1	57.1	77.8	91.5	128.0	114.1
December.....	74.4	53.6	77.8	91.5	128.0	114.1
1896.						
January.....	67.4	46.4	70.4	88.4	150.0	121.2
February.....	65.1	50.0	68.5	88.4	150.0	121.2
March.....	65.1	53.6	68.5	88.4	150.0	121.2
April.....	69.8	55.4	70.4	88.4	150.0	112.9
May.....	60.5	53.6	68.5	88.4	150.0	112.9
June.....	60.5	50.0	68.0	85.4	150.0	112.9
July.....	61.6	48.2	61.1	84.8	150.0	107.1
August.....	55.8	46.4	55.6	88.4	150.0	107.1
September.....	52.3	42.9	51.9	88.4	150.0	107.1
October.....	60.5	46.4	55.6	83.8	150.0	107.1
November.....	67.4	53.6	61.1	83.8	150.0	107.1
December.....	65.1	53.6	59.3	83.8	150.0	107.1
1897.						
January.....	55.8	50.0	51.9	82.3	150.0	107.1
February.....	60.5	50.0	51.9	82.3	150.0	107.1
March.....	54.7	50.0	53.7	82.3	130.0	107.1
April.....	53.5	48.2	55.6	82.3	124.0	107.1
May.....	51.2	42.9	51.9	82.3	112.0	107.1
June.....	48.8	39.3	51.9	82.3	120.0	107.1
July.....	51.2	41.1	53.7	-----	120.0	107.1
August.....	51.2	41.1	53.7	-----	120.0	107.1
September.....	55.8	46.4	58.7	-----	116.0	107.1
October.....	57.0	50.0	55.6	82.3	130.0	107.1
November.....	55.8	46.4	55.6	82.3	140.0	107.1
December.....	55.8	46.4	55.6	82.3	140.0	107.1
1898.						
January.....	57.0	46.4	55.6	83.8	140.0	107.1
February.....	57.0	48.2	61.1	83.8	140.0	107.1
March.....	55.8	50.0	59.3	83.8	140.0	103.5
April.....	55.8	50.0	59.0	83.8	140.0	103.5
May.....	57.0	46.4	64.8	83.8	140.0	103.5
June.....	57.6	46.4	59.3	83.8	140.0	103.5
July.....	58.1	46.4	57.4	83.8	140.0	103.5
August.....	58.1	46.4	59.3	83.8	140.0	103.5
September.....	58.7	47.3	61.1	83.8	140.0	108.5
October.....	59.3	48.2	61.1	83.8	120.0	105.9
November.....	59.3	44.6	61.1	83.8	120.0	103.5
December.....	58.1	48.2	61.1	83.8	128.0	108.5
1899.						
January.....	60.5	50.0	61.1	74.7	128.0	107.1
February.....	65.1	55.4	66.7	74.7	128.0	107.1
March.....	75.6	62.5	86.2	74.7	140.0	107.1
April.....	83.7	64.3	88.9	74.7	140.0	107.1
May.....	83.7	64.3	85.2	74.7	164.0	107.1
June.....	83.7	62.5	85.2	74.7	176.0	107.1
July.....	87.2	60.7	88.9	74.7	170.0	111.8
August.....	97.7	64.3	92.6	76.2	200.0	111.8
September.....	127.9	92.9	111.1	76.2	210.0	123.5
October.....	139.5	103.6	118.5	83.8	220.0	129.4
November.....	139.5	96.4	114.8	91.5	230.0	129.4
December.....	125.6	92.9	103.7	91.5	230.0	135.3

TABLE VIII.—MONTHLY PRICES OF SMOOTH WIRE, SEPTEMBER, 1895, TO DECEMBER, 1899.

[The prices shown are from the Report of the Industrial Commission on Trusts and Industrial Combinations, p. 55. The combination controlling from 75 to 96 per cent of this product was organized in January, 1899.]

Year and month.	Smooth wire, per 100 pounds.	Year and month.	Smooth wire, per 100 pounds.	Year and month.	Smooth wire, per 100 pounds.
1895.		1897.		1898.	
September.....	\$1.75	February.....	\$1.15	September.....	\$1.15
October.....	1.71	March.....	1.16	October.....	1.15
November.....	1.48	April.....	1.15	November.....	1.15
December.....	1.32	May.....	1.12½	December.....	1.12
1896.		June.....		1899.	
January.....	1.26	July.....	1.10	January.....	1.29
February.....	1.25	August.....	1.10	February.....	1.46½
March.....	1.25	September.....	1.14	March.....	1.79
April.....	1.29	October.....	1.20	April.....	1.92½
May.....	1.32	November.....	1.17½	May.....	1.95
June.....	1.26	December.....	1.17	June.....	2.15
July.....	1.24	1898.		July.....	2.37½
August.....	1.25	January.....	1.18	August.....	2.50
September.....	1.20	February.....	1.18	September.....	2.76½
October.....	1.17	March.....	1.20	October.....	2.95
November.....	1.18	April.....	1.18	November.....	2.95
December.....	1.28	May.....	1.15	December.....	2.87½
1897.		June.....	1.16		
January.....	1.21	July.....	1.16		
		August.....	1.15		

TABLE IX.—MONTHLY PRICES OF STARCH AND GLUCOSE AND THE MATERIAL ENTERING INTO THEIR MANUFACTURE, 1888 TO 1899.

[The prices shown are those received and paid by the combination itself. The combination controlling 90 to 95 per cent of these products was organized in August, 1897.]

Year and month.	Products.			Material—corn, per bush.	Year and month.	Products.			Material—corn, per bush.
	Pearl starch, per 100 lbs.	Crystal glucose, per 100 lbs.	Mixing and jelly glucose, per 100 lbs.			Pearl starch, per 100 lbs.	Crystal glucose, per 100 lbs.	Mixing and jelly glucose, per 100 lbs.	
1888.					1894.				
July.....	\$2.34	\$2.83	\$2.18	\$0.4356	Apr.....	\$1.45	\$1.28	\$1.23	\$0.3852
Aug.....	2.82	2.75	1.95	.4311	May.....	1.58	1.47	1.25	.3874
Sept.....	2.22	2.74	1.95	.4324	June.....	1.60	1.47	1.85	.4071
Oct.....	2.18	2.78	1.95	.4172	July.....	1.65	1.64	1.44	.4267
Nov.....	2.15	2.65	1.80	.3762	Aug.....	1.82	1.78	1.68	.5258
Dec.....	2.16	2.57	1.55	.3197	Sept.....	2.05	1.75	1.68	.5538
1889.					Oct.....	1.99	1.67	1.60	.5112
Jan.....	2.11	2.20	1.50	.3037	Nov.....	1.98	1.58	1.48	.4710
Feb.....	2.06	2.14	1.50	.2989	Dec.....	1.91	1.45	1.32	.4116
Mar.....	2.03	2.13	1.65	.3085	1895.				
Apr.....	2.08	2.07	1.65	.3340	Jan.....	1.69	1.32	1.25	.4141
May.....	2.05	2.14	1.88	.3368	Feb.....	1.65	1.33	1.32	.4026
June.....	2.00	2.17	1.88	.3327	Mar.....	1.71	1.40	1.42	.4313
July.....	1.96	2.15	1.62	.3502	Apr.....	1.78	1.44	1.45	.4559
Aug.....	1.93	2.16	1.95	.3510	May.....	2.08	1.69	1.65	.5042
Sept.....	1.88	2.24	1.95	.3297	June.....	1.92	1.61	1.64	.5048
Oct.....	1.90	2.25	2.10	.3138	July.....	1.70	1.37	1.36	.4555
Nov.....	1.93	2.24	2.10	.3169	Aug.....	1.58	1.25	1.20	.4032
Dec.....	1.84	2.24	2.10	.2889	Sept.....	1.55	1.21	1.15	.3427
1890.					Oct.....	1.53	1.25	1.22	.3098
Jan.....	1.81	2.40	2.10	.2650	Nov.....	1.54	1.17	1.12	.2812
Feb.....	1.80	2.42	1.95	.2570	Dec.....	1.43	1.08	1.00	.2657
Mar.....	1.78	2.41	1.95	.2670	1896.				
Apr.....	(a)	2.40	1.95	.3032	Jan.....	1.41	1.09	1.02	.2677
May.....	(a)	2.44	2.00	.3196	Feb.....	1.45	1.08	1.00	.2709
June.....	(a)	2.31	2.00	.3154	Mar.....	1.40	1.04	.99	.2811
July.....	(a)	2.46	2.00	.3447	Apr.....	1.37	1.06	.97	.2950
Aug.....	(a)	2.56	2.20	.4692	May.....	1.37	1.00	.95	.2867
Sept.....	1.86	2.62	2.50	.4676	June.....	1.17	.94	.90	.2706
Oct.....	1.82	2.63	2.50	.4873	July.....	1.15	.96	.85	.2650
Nov.....	1.80	2.58	2.12	.5134	Aug.....	1.14	.91	.85	.2253
Dec.....	1.76	2.27	1.95	.5002	Sept.....	1.15	.90	.87	.2143
1891.					Oct.....	1.16	1.08	1.00	.2339
Jan.....	2.19	2.18	1.95	.4954	Nov.....	1.13	.96	.93	.2254
Feb.....	2.26	1.70	1.85	.5086	Dec.....	.94	.82	.80	.2049
Mar.....	2.29	2.19	2.15	.5932	1897.				
Apr.....	2.36	2.43	2.40	.6920	Jan.....	.84	.77	.72	.1978
May.....	2.42	2.30	2.20	.6348	Feb.....	.79	.74	.70	.1851
June.....	2.52	2.21	2.05	.5723	Mar.....	.83	.75	.72	.1983
July.....	2.46	2.22	2.05	.5758	Apr.....	.85	.78	.72	.2261
Aug.....	2.58	2.31	2.15	.6127	May.....	.84	.80	.77	.2348
Sept.....	2.26	2.20	2.05	.5747	June.....	.96	.87	.84	.2194
Oct.....	2.21	2.07	1.87	.5177	July.....	1.07	1.04	1.00	.2577
Nov.....	2.02	1.95	1.80	.4588	Aug.....	1.41	1.75	1.45	.2969
Dec.....	2.02	1.96	1.80	.4062	Sept.....	1.41	1.75	1.55	.2969
1892.					Oct.....	1.19	1.75	1.15	.2675
Jan.....	2.06	1.80	1.60	.3732	Nov.....	1.06	1.50	1.25	.2661
Feb.....	2.00	1.78	1.70	.3692	Dec.....	1.04	1.52	1.30	.2657
Mar.....	1.89	1.80	1.75	.3679	1898.				
Apr.....	1.74	1.70	1.50	.3813	Jan.....	1.01	1.55	1.30	.2678
May.....	1.76	1.71	1.60	.4255	Feb.....	1.03	1.60	1.30	.2797
June.....	1.82	1.78	1.60	.3972	Mar.....	1.18	1.50	1.15	.2906
July.....	1.82	1.75	1.55	.4032	Apr.....	1.19	1.45	1.15	.2983
Aug.....	1.91	1.83	1.70	.4529	May.....	1.27	1.45	1.15	.3440
Sept.....	1.97	2.08	2.00	.4565	June.....	1.36	1.22	1.08	.3215
Oct.....	1.80	2.05	1.65	.4248	July.....	1.22	1.17	1.02	.3222
Nov.....	1.68	1.93	1.60	.4173	Aug.....	1.25	1.20	1.07	.3374
Dec.....	1.65	1.82	1.48	.4024	Sept.....	1.38	1.22	1.06	.3106
1893.					Oct.....	1.25	1.25	1.11	.3049
Jan.....	1.70	1.70	1.50	.3941	Nov.....	1.26	1.28	1.18	.3278
Feb.....	1.70	1.74	1.70	.4023	Dec.....	1.16	1.28	1.15	.3262
Mar.....	1.76	1.74	1.60	.3958	1899.				
Apr.....	1.71	1.69	1.42	.3970	Jan.....	1.22	1.23	1.08	.3335
May.....	1.72	1.73	1.47	.4122	Feb.....	1.22	1.20	1.09	.3384
June.....	1.70	1.56	1.35	.3566	Mar.....	1.28	1.19	1.12	.3241
July.....	1.66	1.53	1.25	.3768	Apr.....	1.23	1.18	1.12	.3362
Aug.....	1.64	1.46	1.22	.3814	May.....	1.23	1.19	1.13	.3272
Sept.....	1.63	1.57	1.60	.3952	June.....	1.25	1.29	1.26	.3106
Oct.....	1.52	1.52	1.35	.3907	July.....	1.31	1.28	1.20	.3262
Nov.....	1.51	1.48	1.30	.3739	Aug.....	1.29	1.27	1.20	.3160
Dec.....	1.48	1.31	1.17	.3525	Sept.....	1.19	1.23	1.15	.3144
1894.					Oct.....	1.28	1.25	1.18	.3197
Jan.....	1.43	1.30	1.12	.3530	Nov.....	1.36	1.24	1.15	.3162
Feb.....	1.41	1.20	1.10	.3454	Dec.....	1.18	1.16	1.04	.3080
Mar.....	1.41	1.33	1.20	.3532					

a Not reported.

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TABLE X.—RELATIVE MONTHLY PRICES OF STARCH AND GLUCOSE AND THE MATERIAL ENTERING INTO THEIR MANUFACTURE, 1888 TO 1899.

[The combination controlling 90 to 95 per cent of these products was organized in August, 1897.]

Year and month.	Products.			Material—corn.	Year and month.	Products.			Material—corn.
	Pearl starch.	Crystal glucose.	Mixing and jelly glucose.			Pearl starch.	Crystal glucose.	Mixing and jelly glucose.	
1888.					1894.				
July	100.0	100.0	100.0	100.0	Apr.	62.0	45.2	56.4	88.4
Aug.	99.1	97.2	89.4	99.0	May.	67.5	61.9	57.3	88.9
Sept.	94.9	96.8	89.4	99.3	June.	68.4	51.9	61.9	93.5
Oct.	93.2	98.2	89.4	95.8	July.	70.5	58.0	66.1	98.0
Nov.	91.9	93.6	82.6	86.4	Aug.	78.2	62.9	77.1	120.7
Dec.	92.3	90.8	71.1	73.4	Sept.	87.6	61.8	77.1	127.1
1889.					Oct.	85.0	59.0	73.4	117.4
Jan.	90.2	77.7	68.8	69.7	Nov.	84.6	55.8	67.9	108.1
Feb.	88.0	75.6	68.8	67.5	Dec.	81.6	51.2	60.6	99.1
Mar.	86.8	75.3	75.7	70.8	1895.				
Apr.	88.9	73.1	75.7	76.7	Jan.	72.2	46.6	57.3	95.1
May.	87.6	75.6	86.2	77.3	Feb.	70.5	47.0	60.6	94.0
June.	85.5	76.7	86.2	76.4	Mar.	73.1	49.5	65.1	99.0
July.	83.8	76.0	74.3	80.4	Apr.	76.1	50.9	66.5	104.7
Aug.	82.5	76.3	89.4	80.6	May.	88.9	59.7	75.7	115.7
Sept.	80.3	79.2	89.4	75.7	June.	82.1	56.9	75.2	115.9
Oct.	81.2	79.5	96.3	72.0	July.	72.6	48.4	62.4	104.8
Nov.	82.5	79.2	96.3	72.8	Aug.	67.5	44.2	55.0	92.6
Dec.	78.6	79.2	96.3	66.3	Sept.	66.2	44.2	52.8	78.7
1890.					Oct.	65.4	44.2	56.0	71.0
Jan.	77.4	84.8	96.3	60.8	Nov.	65.8	41.3	51.4	64.6
Feb.	76.9	85.5	89.4	59.0	Dec.	61.1	38.2	45.9	61.2
Mar.	76.1	85.2	89.4	61.3	1896.				
Apr.	(a)	84.8	89.4	69.6	Jan.	60.3	38.5	46.8	60.3
May.	(a)	86.2	91.7	73.4	Feb.	62.0	38.2	45.9	62.2
June.	(a)	81.6	91.7	72.4	Mar.	59.8	36.7	45.4	64.5
July.	(a)	86.9	91.7	79.1	Apr.	58.5	37.6	44.7	67.7
Aug.	(a)	90.5	100.9	107.7	May.	58.5	35.3	43.6	65.8
Sept.	(a)	92.6	114.7	107.3	June.	50.0	33.2	41.3	62.2
Oct.	77.8	92.9	114.7	111.9	July.	49.1	33.9	39.0	60.8
Nov.	76.9	91.2	97.2	117.9	Aug.	48.7	32.2	39.0	51.7
Dec.	75.2	80.2	89.4	114.8	Sept.	49.1	31.8	40.1	49.2
1891.					Oct.	49.6	38.2	45.9	53.7
Jan.	93.6	77.0	89.4	113.7	Nov.	48.3	34.1	42.7	51.7
Feb.	86.6	60.1	84.9	116.8	Dec.	40.2	29.0	36.7	47.0
Mar.	97.9	77.4	98.6	136.2	1897.				
Apr.	100.9	85.9	110.1	158.9	Jan.	35.9	27.2	33.0	45.4
May.	103.4	81.3	100.9	145.7	Feb.	33.8	26.1	32.1	42.5
June.	107.7	78.1	94.0	131.4	Mar.	35.5	26.5	33.0	45.5
July.	105.1	78.4	94.0	132.2	Apr.	36.3	27.6	33.0	51.9
Aug.	110.3	81.6	98.6	140.7	May.	35.9	28.3	35.3	53.9
Sept.	96.6	77.7	94.0	131.9	June.	41.0	30.7	38.5	50.4
Oct.	94.4	73.1	85.8	118.8	July.	45.7	36.7	45.9	59.2
Nov.	86.3	68.9	82.6	105.3	Aug.	60.3	61.8	66.5	67.9
Dec.	86.3	69.3	82.6	93.3	Sept.	60.3	61.8	71.1	67.9
1892.					Oct.	50.9	61.8	52.8	61.4
Jan.	88.0	68.6	73.4	85.7	Nov.	46.1	53.0	57.3	61.1
Feb.	85.5	62.9	78.0	84.8	Dec.	44.7	53.9	59.6	61.0
Mar.	80.8	63.6	80.3	84.5	1898.				
Apr.	74.4	60.1	68.8	87.5	Jan.	43.4	54.8	59.6	61.5
May.	75.2	60.4	73.4	97.7	Feb.	44.0	56.5	59.6	64.2
June.	77.8	62.9	73.4	91.2	Mar.	50.4	53.0	52.8	66.7
July.	77.8	61.8	71.1	92.6	Apr.	50.9	61.2	52.8	68.5
Aug.	81.6	64.7	78.0	104.0	May.	54.3	51.2	52.8	79.0
Sept.	84.2	73.5	91.7	104.8	June.	58.1	43.1	49.5	73.8
Oct.	76.9	72.4	75.7	97.5	July.	52.1	41.5	47.0	74.0
Nov.	71.8	68.2	73.4	95.8	Aug.	53.4	42.4	49.1	77.5
Dec.	70.5	64.3	67.9	92.4	Sept.	59.0	43.1	49.8	71.3
1893.					Oct.	53.4	44.2	50.9	70.0
Jan.	72.6	60.1	68.8	90.5	Nov.	53.8	45.4	51.8	75.3
Feb.	72.6	61.5	78.0	92.4	Dec.	49.6	45.2	52.8	74.9
Mar.	75.2	61.5	73.4	90.9	1899.				
Apr.	78.1	69.7	65.1	91.1	Jan.	52.1	43.5	49.5	76.6
May.	73.5	61.1	67.4	94.6	Feb.	52.4	42.4	50.0	77.7
June.	72.6	55.1	61.9	81.9	Mar.	54.7	42.0	61.4	74.4
July.	70.9	54.1	57.3	86.5	Apr.	52.8	41.7	51.4	77.2
Aug.	70.1	51.6	56.0	87.6	May.	52.8	42.2	51.8	75.1
Sept.	69.7	55.5	73.4	90.7	June.	53.4	45.6	57.8	71.3
Oct.	65.0	53.7	61.9	89.7	July.	56.0	45.2	56.3	74.4
Nov.	64.5	52.3	59.6	85.8	Aug.	55.1	44.9	55.0	72.3
Dec.	63.2	46.3	53.7	80.9	Sept.	50.9	43.5	53.0	72.2
1894.					Oct.	54.7	44.2	54.1	73.4
Jan.	61.1	45.9	51.4	81.0	Nov.	58.1	43.8	52.8	73.8
Feb.	60.3	42.4	50.5	79.3	Dec.	50.4	41.0	47.7	70.8
Mar.	60.3	47.0	55.0	81.1					

THE YUKON AND NOME GOLD REGIONS.

BY SAM. C. DUNHAM.

THE YUKON AND ITS TRIBUTARIES.

The expenses, difficulties, and hardships of the summer journey from the coast to the Klondike are things of the past. The White Pass and Yukon Railroad was completed early in July, 1899, from Skagway to the head of Lake Bennett, a distance of about 40 miles. From Bennett City to Dawson the journey is now made in four days in commodious and comfortable steamers, at a cost of less than \$100, including berth and meals. The up-trip from Dawson to Bennett City occupies from six to ten days, according to stage of water. As a consequence of the great improvements in transportation on the upper Yukon and the lakes, the St. Michael route is now but little used for passenger traffic to and from the States. During the summer of 1899 about 8,000 people left Dawson, half of whom returned to the coast by the upper river route. Of the other half, about 2,500 went to Nome, and the remainder entered the Forty Mile District. Not to exceed 1,000 people arrived in Dawson from the outside world during the season, and not more than 50 of these went in by the St. Michael route. The news of the gold strike at Nome received no credence at Dawson until about September 1, and it was then too late, because of a lack of transportation facilities, for a general movement to the new gold fields. The community is prepared for a great stampede, and it is probable that at least eight or ten thousand people will leave Dawson for Nome as rapidly as they can secure passage down the river this year. The sporting classes are making preparations to leave in a body, on account of the restrictions placed on their enterprises at Dawson.

The lower river steamboats continue to handle the bulk of the freight, and about 10,000 tons were taken to Dawson by way of St. Michael during the season, while 6,000 tons were brought in by the Skagway route.

The greatest source of surprise to one returning to Dawson after a year's absence is the remarkable growth of the town. There are no traces of the two or three disastrous fires which occurred during the winter. Hundreds of fine buildings have been erected on every hand, and the hills back of the town are covered with substantial log and

frame dwellings. The business portion of the town, which extends for a mile or more along the river front, is solidly built up for three or four blocks back from the river. Third avenue, which in 1898 contained only a few scattered buildings, is becoming the retail or shopping street.

According to the census taken by the Northwest Mounted Police, the population of the Yukon District in the spring of 1899 was 35,000. Dawson had a population of 15,000, and about the same number of people were located on the Klondike and Indian rivers and their tributaries, while 5,000 were scattered on outlying creeks. There were 2,000 women in the district, of whom 500 were prostitutes. Fully 10,000 of those who spent the winter in town were idle, and a large proportion of this vast number were destitute, depending upon private charity for subsistence. There was no organized charity, but there was scarcely an entertainment of any kind during the winter that was not given primarily for the relief of the destitute. Many women were without means and became objects of charity. Nearly all the women who come to the Klondike in search of employment are of the class who perform domestic service in the States. There is little demand for this kind of service in town, and owing to the low moral tone of the community a woman who goes to an isolated cabin on a creek to cook and keep house for a miner must bear the stigma of being his mistress; consequently there are no opportunities in the line of domestic service for respectable women. A number of women have established roadhouses on the creeks, and all appear to be prosperous, being well patronized by the miners in the vicinity and by the traveling public. No demand for saleswomen exists in Dawson, and the field for stenographers and typewriter operators is limited.

While there have been no marked advances in the prices of real estate, the market is firm, and is likely to remain so for some years, as the opening up of the rich bench and hillside diggings and other new developments on old creeks insure to the camp a long life.

As a result of the adoption of a good drainage system, the sanitary condition of Dawson is greatly improved, and it is now as healthy a town as can be found anywhere.

The municipal government is a model one in every way, and there is almost a total absence of petty crimes, while but one murder was committed during the winter.

The town has a well-organized volunteer fire department, equipped with apparatus which cost \$30,000.

The Good Samaritan Hospital, a Protestant institution recently established, is doing good work, and can accommodate about the same number of patients as the old hospital described in a former report. The Government contributes \$15,000 per annum to the support of these institutions.

There are four churches, which hold regular services, that are well attended.

There are about fifty saloons in the town, which pay to the Government an annual license of \$2,000 each. They are required to close at 12 o'clock (midnight) Saturday and are not allowed to reopen until 6 o'clock Monday morning. This rule applies to all classes of business, except in cases of necessity, when permits are issued. With two or three exceptions, the saloons have reduced the price of drinks to 25 cents, but the wages of barkeepers, faro dealers, etc., remain at the old figures of \$1.50 and \$2 per hour. A marked improvement in the morals of the town is apparent, and, compared with the increase of population, far less money is spent in saloons than formerly.

About 15,000 men were employed in mining during the winter, probably one-half of them working for wages, and the others being engaged on lays, working individual claims, and prospecting. As a rule the lay men were unsuccessful, which fact can be attributed largely to lack of experience, most of them having no practical knowledge of mining.

There has been a large reduction of wages in the mines, the prevailing rate now being 70 cents per hour without board, or \$5 per day with board, for the mining season. A few claim-owners continue to pay the old rate of \$1.50 per hour for skilled miners.

Mechanical labor, such as woodworking, blacksmithing, etc., is paid for at the old rate of \$1.50 per hour, mechanics furnishing their own tools. Many carpenters have come into the country without tools, most of whom could find profitable employment but for their negligence in this respect.

There has been a material reduction in the cost of living in the Klondike during the past season. Flour, which sold in 1898 for \$16 per hundred, now sells for \$10, and other commodities have undergone a like reduction in price. Many small traders have established themselves in town and on the creeks, and the retail prices fixed by the commercial companies no longer control the market. The old companies are becoming wholesalers, and the small traders are rapidly securing control of the retail trade.

About 1,500 head of beef cattle were brought in during the summer, as well as a large supply of fresh mutton and pork. The ruling prices were 50 cents per pound for beef and 75 cents per pound for mutton and pork.

There are 50 or 60 restaurants, and the prices of meals range from 50 cents to \$1.50. The better class of restaurants supply their regular patrons with meals for \$15 per week. Good cooks receive \$10 per day, and waiters are paid from \$25 to \$40 per week with board. Notwithstanding the liberal wages paid, there are many idle cooks and waiters walking the streets in search of employment.

The output of the Klondike gold fields for the season of 1897-98 was estimated in Bulletin No. 19 of the Department of Labor at \$12,000,000. This figure is accepted by the bankers, commercial companies, and Government officials at Dawson as correct, although the output is placed as high as \$15,000,000 by some other authorities. The output of gold for the past season (1898-99), according to data obtained from the same sources as for the preceding year, was \$17,000,000, divided among the creeks as follows: Eldorado, \$4,000,000; Bonanza, \$3,000,000; Dominion, \$4,000,000; Hunker, \$1,500,000; Sulphur, \$1,000,000; Gold Run, \$1,000,000; Bear, \$250,000; other creeks, \$750,000; bench and hillside claims, \$1,500,000.

The Government collected \$700,000 in royalties. The exemption from the royalty tax has been raised from \$2,500 to \$5,000, and this is the only change that has been made during the year in the mining regulations. There is still widespread complaint against the exactions of the Government. It is estimated that the receipts of the gold commissioner's office, inclusive of royalties, will reach \$1,700,000 for the year 1899. Less than \$100,000 of this vast sum has been expended for the benefit of the community from which it was taken.

Eldorado Creek showed a production for the season of over \$4,000,000, and thus maintained its position as the richest creek in the district. It has been demonstrated that the pay streak extends farther up the valley than was formerly supposed, and very rich ground has been found as far up as claim No 39. Several valuable claims are being developed in the thirties, 36 and 38 being exceptionally good. On the west side of the creek, opposite 30, good pay has been found in the benches, which are being worked profitably.

Bonanza Creek produced \$3,000,000 during the season, about the same as the year before. On account of the royalty tax, no summer work was done on the upper portion of the creek. The creek claims on Bonanza, from 10 below Discovery to the mouth produced very little gold compared with the output of the preceding season. On account of the royalty tax and the scarcity of wood, the owners generally allowed their property to lie idle, simply doing representation work. It is conceded that this portion of the creek can not be worked profitably under present conditions, and it will lie idle until more economical methods can be introduced. While the creek claims in this vicinity have proved a disappointment, very rich pay has been found in the benches and on the hillsides on the south side of Bonanza from the mouth of Skookum to 25 below Discovery. There are some 50 claims in this string which were worked profitably, having produced about \$500,000 during the season. From 25 to 70 below Discovery not much hillside mining has been done. At or near 70 below the pay streak has been found in the hillsides on the north side of the creek and traced over the hills to the Klondike, a distance of 2

miles. Some good hillside claims are located in this vicinity and they will undoubtedly be profitably worked under economical methods. The principal bench claims in the Bonanza Valley are near the mouth of Skookum. Gold Hill, which faces Bonanza between Eldorado and Skookum, has proved exceedingly rich. One claim there, which was bought for \$50,000, produced \$250,000 during the season. The aggregate output of the newly developed bench claims was about \$1,500,000, and more than offset the reduced production of the creek claims on Bonanza. Hillside claims have a frontage of 100 feet and extend from the junction with the creek claim to the top of the hill, in some instances 300 or 400 feet. No definite ruling has ever been made as to the boundary between creek and hillside or bench claims, and this fact seriously affects values.

On Hunker Creek very rich pay has been found in the vicinity of Discovery, and good pay extends for 2 miles above and about the same distance below Discovery. Although the lower portion of the creek was not worked to any great extent, the output was \$1,500,000, or about \$500,000 more than the preceding season. It was worked down to 60 below Discovery, and that claim showed up better than any other below 20, producing about \$100,000. With few exceptions the claims in that portion of the creek can not be worked profitably under present conditions. A number of bench claims have been opened up, but they have been worked in an indifferent manner and without satisfactory results. The pay in Hunker seems to cease at 20 above Discovery, and nothing has been found in the hillsides. No steps have been taken to work Lower Hunker, but a number of good bench claims have been found in that vicinity. The Klondike Government Concession Company, mentioned in a former report, is having a survey made for hydraulic operations, but no machinery has been placed on the ground, nor have any steps been taken to clear the land of timber, etc.

It has been clearly demonstrated that there is gold in paying quantities in Gold Bottom, a tributary of Hunker, for a distance of 3 miles from its mouth, but the ground is so deep, and the cost of operation so great, that the creek as a whole has shown no profit.

On Last Chance, a tributary of Hunker, good pay has been found for some 3 miles above the mouth. No. 27 proved very rich, two men having taken \$10,000 from a small hole. Rich benches have been found on the lower part of the creek. Last Chance produced about \$100,000 as the result of indifferent work.

With the exception of Gold Bottom and Last Chance no tributaries of Hunker have shown any value.

Dominion has fully justified expectations, having produced about \$4,000,000. Nothing of value has been found higher up than 8 above Inner Discovery, but from that point to 10 below Lower Discovery,

a distance of 7 miles, much work was done, and generally speaking the creek proved rich. Good pay is reported as far down as 5 miles below Lower Discovery, but very little development work having been done there that portion of the creek is not yet proved. Opposite 30 and 31, below Lower Discovery, good pay has been found in the benches, and it is believed that the pay streak extends for a considerable distance down the valley, although it is as likely to be found in the benches as in the creek. The lower portion of Dominion is unworked. It resembles Lower Hunker, being wide and deep. There is a good supply of wood on the creek, and the ground is comparatively shallow, ranging from 12 to 20 feet in depth. Much of the creek can be worked in the summer by ground-sluicing and hydraulic methods. About a mile above Lower Discovery some very good bench claims have been opened up. Not much work has been done on them, but no doubt many rich claims will be developed in that vicinity.

The principal tributary of Dominion is Gold Run. Early in 1899 the value of claims on this creek ranged up to \$25,000, that sum having been offered for one claim and refused. Considerable work was done on the creek, and it is probable that the output reached \$1,000,000. No benches have been found on Gold Run.

Cariboo Gulch, a tributary of Dominion, produced some gold toward its head waters during the season of 1897-98, but the lower portion of the creek, although cross-cut and thoroughly prospected, showed no value; but quite late in the past season very rich bench claims were found at the lower end of the creek.

Eureka Creek, a tributary of Indian River, was worked profitably during the winter, about 200 men being employed. The creek, which forks 2 miles from the mouth, is located for a distance of 8 miles. No accurate data as to the output could be secured, but it is believed that the creek will be a good producer.

Sulphur Creek produced about \$1,000,000. No. 26 above Discovery is considered very rich. The creek has been worked and gold found from 60 above to 60 below Discovery, a distance of about 12 miles, but it has been worked only in spots. The ground is very deep and the pay streak shallow in most portions of the creek. In the upper portion but little pay has been found in the creek, but rich pay has been found in the benches in that vicinity.

Quartz Creek has not produced anything of value, although good bench claims are reported to have been found along that stream.

None of the lower tributaries of Indian River have produced any gold or even shown encouraging prospects. This statement is true of all the streams entering the Yukon between Indian River and the Klondike, and all claims on these creeks have been abandoned.

Bear Creek has shown no value except near the mouth, all the upper part of the creek being barren. The output for the season was about \$250,000.

None of the upper tributaries of the Klondike, including Too Much Gold and All Gold creeks, have proved of value, and it would seem that they are outside of the gold belt.

The only hydraulic work of any importance so far undertaken in the district is on Australian Creek, a tributary of Indian River. Preparations are being made for extensive operations there, and machinery, supplies, etc., are being carried in by pack train. The work is being conducted by an English-French syndicate, and about 40 men were employed during the past season.

The problem as to the practicability of dredging the beds of rivers is still unsolved, as no attempts have been made in this direction.

No quartz has been found in the Klondike district.

Steam thawing machines, which have been generally adopted in the winter diggings, have proved a great success. They effect a saving of 75 per cent in the cost of fuel, and make it possible to run shallow drifts, thus avoiding the expense of timbering, which was often necessary under the old method of burning.

The boom days of the Klondike are at an end, and the era of high wages and exorbitant prices is drawing to a close. The mining industry and all ordinary business and commercial enterprises are firmly established on a solid basis. It would be presumptuous to attempt to predict the length of time that will be required to exhaust the gold deposits that are known to exist in the immediate vicinity of Dawson. It may be stated, however, as the opinion of well-informed mining men, that at the present rate of production it will take ten years to work out the creeks and benches now proved to contain gold in paying quantities. It is reasonable to presume that during this period the district will support a population of fifteen or twenty thousand. The most important factor in this estimate, and one which will revolutionize placer mining throughout this northern region, is the existence of gold in the hillsides far above the beds of the creeks. On many of the richest creeks gold has been found to the hilltops on both sides of the creek, as well as in the creek bed itself. Moreover, it can be accepted as a general rule that where the pay streak is lost in the creek it can be found in the hillside. This rule holds good on every creek in which pay has been found in the Klondike district. The same condition is conclusively proved to exist wherever gold has been discovered in the Yukon region, notably at Forty Mile, Birch Creek, Rampart, and on the head waters of the Koyukuk, and the developments during the past summer at Nome indicate that the same formation exists there. In brief, it can be stated positively that gold is much more generally distributed throughout the Yukon Basin and northern Alaska than was formerly supposed.

The Forty Mile district showed satisfactory developments during the past season. A large number of people went down from Dawson

during the fall of 1898, and there were about 1,500 men at work in the district, mostly engaged in prospecting, and distributed as follows: Canyon Creek and Walker's Fork, 175; O'Brien Creek, 50; North Fork (including Wade Creek), 900; Chicken Creek and Mosquito Fork, 175; various other tributaries, 200. The town of Forty Mile contained a population of 250, of which 15 were women and 80 Indians.

Jack Wade Creek, a tributary of Walker's Fork, has proved rich. The creek, which lies in American territory, is about 15 miles long and is located for its entire length in 1,000-foot claims. Two claims, about 3 miles from the mouth of the creek, were sold last summer to Dawson operators for \$35,000. On this property nuggets weighing from 1 to 3 ounces have been found. The pay streak is 150 feet wide. Average pans show from 25 to 60 cents, and as high as \$11 to the pan has been found on bed rock. A large number of bench claims have been located. There is a good supply of water and an abundance of timber. Many miners entered the district during the past summer, and it is probable that the creek will show a population of 2,000 next year. Two or three of the tributaries of Jack Wade Creek prospect well at their mouths, but no development work has been done on them.

Chicken Creek, which was expected to show extensive diggings, has proved a disappointment. There are three or four rich claims on the creek, two of which were worked last season and produced about \$150,000. These claims are near the head of the creek. The lower portion of the creek has not shown any valuable ground, but it is possible that the pay streak may be located in the benches.

Gold has been found in the benches on several streams in the district, and the indications are that many rich benches will be discovered.

The output of the district for the season of 1898-99 is estimated at \$250,000.

Eagle City, in the American Creek mining district, has been made the headquarters of the military district of northern Alaska. A post known as Fort Egbert has been established, and six or eight large and comfortable log buildings have been erected. Maj. P. H. Ray, in command of the district of northern Alaska, is stationed at Fort Egbert, with a garrison of 100 men. The remainder of his command is distributed as follows: Circle City, 30 men; Rampart City, 20; Fort Gibbon (at the mouth of the Tanana), 200; St. Michael, 24; Nome, 20. Fort Gibbon is commanded by a captain, and the other posts are in command of lieutenants.

The American Creek district showed no new developments during the past season. In the fall of 1898 Eagle City had a population of 1,300, but by Christmas this number had dropped to 400, and on September 15, 1899, there were less than 40 people in the town. About 140 men passed the winter on the creeks, but they did very little effective work. It has been impossible to secure a statement of the

output, but it is probable that not more than \$25,000 was taken out. American Creek is staked from 43 above to 40 below Discovery, a distance of nearly 20 miles, and Discovery Gulch contains twenty claims.

There are many claims on these creeks which could be profitably worked, but they are largely held by nonresidents, who simply represent their properties and hold them for speculative purposes. This condition exists in every mining camp on the American side, and will continue until the Government amends its elastic mining laws in the interest of the working miner.

Star City, at the mouth of Seventy Mile River, has forty cabins, but on September 15 was practically deserted, all but two or three men having left for Nome. About 250 men spent the winter on Seventy Mile and its tributaries, but no results are reported. As stated in a former report, there are large areas of good hydraulic ground in the district; but it must await the introduction of machinery and more economical methods.

Fourth of July Creek, which comes into the Yukon from the westward about 80 miles above Circle City, has proved a disappointment. There was a stampede to this creek in the summer of 1898, and it was thought to be rich; but no pay was found, and the district has been abandoned.

A small village of ten or twelve cabins has sprung up at the mouth of Charley River. Seventy-five men were prospecting on the stream and its tributaries during the winter, but nothing of value was discovered.

Circle City on January 1, 1899, contained a white population of 625, including 85 soldiers, 32 women, and 7 children. The Indian population numbered 26. On September 15, 1899, nearly everybody had left for Nome, and the white population had dwindled to 55, including 20 soldiers and 13 women. The Birch Creek diggings last season showed the smallest output since the discovery of gold in 1893. Less than 100 men were employed on the creeks, taking out about \$250,000. The stores of the three commercial companies were greatly overstocked, shipments having been made on the assumption that the town would contain a population of at least 2,000 this winter. The visible supply of liquors on September 15 consisted of 3,000 gallons of whisky and 437 barrels of beer.

Fort Yukon is practically deserted, there being only two or three white persons in the place in September. No discoveries of gold have been made on the Porcupine and Beaver rivers, and those streams have been abandoned by prospectors.

Rampart City (Minook) has barely held its own. On August 20, 1899, there were about 300 people in the town, of whom 35 were women, there were about 200 men on the creeks. By the close of navigation the population was greatly reduced through departures for Nome,

and it is probable that not more than 200 people are passing the winter there. The output is estimated at \$150,000, or about the same as the preceding year. (a)

Good prospects have been found on Eureka Creek, a tributary of Baker Creek, which enters the Tanana River from the eastward about 70 miles above its mouth. A pay-streak 5 feet deep and 40 feet wide, averaging 5 cents to the pan, has been located on one claim; but as the ground is deep and there is not an adequate supply of water, work can not be conducted profitably at the present cost of labor and supplies. The district was practically abandoned during the winter on account of the Nome stampede.

In September, 1899, sensational reports were received at St. Michael and Nome of a rich strike on the upper Koyukuk, and this news was no doubt transmitted to the States. It was reported that ground which yielded \$100 per day to the shovel had been opened up on Slate and Myrtle creeks, tributaries of the Middle Fork. The first and only authentic information received relative to this new strike is contained in a letter, dated January 18, 1900, from the representative of one of the commercial companies at Bergman, a trading post located on the Koyukuk about 525 miles above its mouth. The following statement is taken from that letter:

There is a gold belt running almost east and west and cut first by the Allenkaket River, 12 miles above Bergman, where good prospects have been found and some 12 or 14 men are now at work. Then comes Johns Creek, about 3 miles above Clow, our new station, which taps the belt, and we expect just as good results from it as from any of the others. Then 10 miles above that is Wild Creek, where they are doing considerable practical prospecting. Platinum in paying quantities has been found with the gold, averaging 3 grains of platinum to 1 grain of gold, and it is expected to pay in gold alone; but up to the present time there has not been enough work done to prove this statement. The men are still at work and we expect to hear from them favorably any day.

Next comes the North Fork of the Koyukuk. That was struck late last fall by inexperienced men; but the surface prospects they found were sufficient to cause a stampede from Myrtle and Slate creeks, and a number have neglected their claims there to prospect on the North Fork. Myrtle and Slate creeks are tributary to each other, and empty into the Middle Fork. They are the creeks on which pay was first found, and though up to the present time there has been nothing startling found, it has been proven that they are rich. There was some sluicing done last summer and good money made, but had the parties known how to mine they would have made three dollars where they made only one. They were so careless in their clean up that after

a Information received at St. Michael February 1, 1900, indicates that there are about 300 men at work in the Rampart diggings. Little Minook and Little Minook, Jr., are said to be the best creeks, and good results are being obtained from winter work.

they had quit work and started down for supplies other men found pieces of gold in their boxes weighing as high as \$2.

Just over the divide from the head of Slate Creek is Lake Creek, which empties into the South Fork of the Koyukuk, where they have found good prospects.

Then the South Fork itself has developed some bench claims that promise big returns with an expenditure of a few thousand dollars in machinery for hydraulic purposes. These benches have been prospected and rich gravel found, but as yet they have not reached bed rock. So we do not know how deep it is to bed rock nor whether there is pay on it or not, but they have a pay streak from 5 to 19 feet deep and 300 feet wide that averages 6 cents to the pan, and sometimes they find pieces that go as high as \$1.75.

This is all we know at present in regard to the extent of the country, but if it was measured it would certainly cover an area of 20 miles in width by at least 100 miles in length, it being all of the latter distance in a direct line from the Allenkaket to the South Fork of the Koyukuk, with all these streams cutting through the belt at different points. There are other streams that are supposed to cut into this belt, but as yet no one has been on them; so we know nothing about them.

Our new town site (Clow) is situated 80 miles above Bergman, which puts it within 55 miles of the farthest diggings we have, with the exception of the Allenkaket, and the miners on the Allenkaket will have to depend on Bergman as a base for their supplies for the present.

Distances from Clow are as follows: Slate and Myrtle creeks, 55 miles; Twelve-mile Creek, 43 miles; North Fork, 24 miles; Wild Creek, 14 miles; Johns Creek, 3 miles.

The diggings on the South Fork are less than 50 miles from Clow, by making a portage of about 15 miles from the South Fork to the Middle Fork.

There are about 150 miners in the country at the present writing, and they are all cheerful and hopeful and working hard. In December, 21 men came in from Circle City. They are all practical miners, and as soon as they had looked around for a few days every one of them became interested in property, either by buying an interest or taking a lay on the different claims. They all say that the country looks well and that they are satisfied to stay with it. This has improved the spirits of all the men in this region, and they have gone to work with renewed energy.

This information is accepted as reliable, and several old residents of the Koyukuk now in Nome express their determination to return there. Even if the reports should receive no further verification, it is probable that an important stampede for the new gold fields of the upper Koyukuk will occur during the coming summer. Leaving out of consideration the possibilities of rich finds, the inaccessibility of the new section and the uncertainties of the enterprise offer irresistible attractions to the typical prospector.

It was stated in a former report (Bulletin No. 16) that the Koyukuk was navigable for only about 300 miles. This statement was based on information furnished by steamboat men who up to that time had not succeeded, on account of low water, in reaching a higher point than

that indicated. During the season of 1898 it was practically demonstrated that 300-ton steamboats could ascend the river at a good stage of water for a distance of 650 miles. The country is well timbered and contains large deposits of coal of good quality, and, with the exception of the cost of transporting supplies, presents no obstacles to the successful operation of its mines.

There have been some developments in coal mining along the Yukon. During the winter of 1898-99 the Alaska Commercial Company opened up a coal vein on Nation River, 30 miles below Star City. The coal was bituminous and of a high grade. Two thousand tons were mined during the winter, but the deposit was pockety, at no time during development showing a true coal measure, and it was practically worked out.

The North American Transportation and Trading Company worked their coal mine at Coal Creek, and took out 1,300 tons, some of which was sold in Dawson at \$25 per ton.

Eighty miles above Anvik a coal vein which shows a high grade of lignite is being extensively worked during the present winter, under a contract with the Alaska Commercial Company to supply 5,000 tons during the next two years.

The price of coal at the mines is \$20 per ton.

During the winter of 1898-99 a large number of men were engaged in chopping wood on the Yukon, and at the opening of the navigation season of 1899 there were probably 25,000 cords of wood scattered along the river. The price at the beginning of the season was \$12 per cord, but it soon dropped to \$8, and toward the close of the season choppers were glad to dispose of their wood at \$4 per cord, and much was sold at even lower prices. This large reduction in price was in a measure caused by an oversupply, but principally by the Nome excitement, everybody on the river being desirous of getting to the new gold fields before the close of navigation. There are now some 15,000 cords of old wood lying at the wood yards. Hundreds of cords, in small quantities of from 25 to 100 cords, have been abandoned by the owners, nearly all of whom joined the Nome stampede.

GOLOVIN BAY AND NOME.

A number of men who were unable to secure transportation from St. Michael to Dawson in the fall of 1897 passed the winter of 1897-98 on Fish River, a tributary of Golovin Bay. They were attracted by the fact that a silver mine located on one of the tributaries of Fish River had been successfully worked for several years, and by the reports of natives that gold had been found by them on some of the streams in that vicinity. Considerable prospecting was done on Fish River and its tributaries during the winter. Good prospects

miles in an air line from the beach. There are about 30 claims of 20 acres each and a few fractional claims on the creek. The ground is shallow, running from 2 to 5 feet in depth, and the pay streak has been proved to be over 150 feet wide on several claims. Discovery is a little more than halfway from the mouth to the head of the creek, and from No. 3 below Discovery to the head it has proved to be very rich. No. 1 below yielded as high as \$14,000 in a clean up, and produced \$115,000 during the season. No. 8 above produced \$192,000, and two or three other claims passed the \$50,000 mark. Many large nuggets have been found on Anvil, No. 1 below Discovery having produced two weighing \$213 and \$320, respectively. Quartz, Specimen, and Nickola gulches, tributaries of Anvil, appear to be as rich as the creek itself, but they are short, none of them having more than two or three claims. Good prospects have been found on the bench claims on Anvil, but their value is not yet proved. Some sales have been made at prices ranging from \$45,000 to \$75,000 for a 20-acre claim.

Over the divide to the westward of Anvil is Snow Gulch, which empties into Glacier Creek. This is a short gulch, having but three claims and a fraction, but it contains the richest ground yet opened up in the district. Nuggets weighing as high as \$150 have been found. In a run of twenty-four hours \$7,000 was taken out, with three men shoveling in. The gulch produced about \$300,000 during the short season. Drifting is being carried on at present, the deepest point to bed rock being 11 feet. The gravel is dry and easily worked. One dump taken from a pay streak 5 feet deep and 20 feet wide averaged \$6 to the pan. If the ground untouched averages as well as that which has been worked, the four claims on this gulch will produce \$1,000,000 apiece.

Glacier Creek, a tributary of Snake River, is about the same length as Anvil, but is wider and carries more water. It is probably as rich as Anvil. Discovery is about 2 miles from the mouth of the creek. No. 2 below and No. 3 above have been developed and proved to be rich, and good prospects have been found as far up as No. 8 above.

Dexter Creek, which heads over the divide to the eastward from Anvil, is a tributary of Nome River, which runs parallel with Snake River and empties into Bering Sea $3\frac{1}{4}$ miles east of the mouth of the Snake. Dexter is rich, but the supply of water was insufficient for sluicing during the latter part of the season, and since no ground was opened up early in the season no great output was reported. As high as \$300 a day was taken out with a rocker. Some of the largest nuggets produced in the district came from this creek, many weighing from \$25 to \$80 apiece. On one claim two men shoveling onto a dump, in the absence of water picked out \$300 worth of nuggets from the dry gravel in one day.

Dry Creek, a tributary of Snake River, and Mountain Creek, a

tributary of Glacier Creek, are rich. Bedrock has not been reached, but as high as 50 cents to the pan has been found.

Bonanza, a short gulch running parallel with Mountain Creek and emptying into Glacier, has but two claims. One pan of gravel taken out 18 inches below the surface produced \$4.60.

There are many other creeks—Lindbloom, Gold Bottom, Bourbon, Sunset, Monument, Moonlight, Little—all tributaries of Snake River, which were prospected during the season. No large output was reported from any of these creeks, but they are likely to prove rich, as coarse gold has been found on all of them.

Osborne and Buster creeks, tributaries of Nome River, and Lillian Creek, a tributary of Buster, promise to be good producers.

Just above Buster is Dewey Creek, which prospects well, but no development work has been done.

Next above are Mineral and Basin creeks, both of which show 50 cents to the pan and a pay streak at least 50 feet wide.

Just above Basin Creek is Sampson Creek. Then come Manila, Hobson, and Schley creeks. Good prospects have been found on all of these streams, but no development work has been done.

Besides the creeks designated, there are many other tributaries of Snake and Nome rivers which show good prospects and promise large returns.

About 250 men worked for wages on Anvil Creek during the season, 200 men were employed on Glacier and Snow, and about 200 found employment for wages on other creeks. Wages in the creek diggings were \$5 per day and board, with a bonus of \$3 per day at the close of the season for continuous service.

Since there was no systematic method of shipping gold dust, it has been impossible to secure an accurate statement of the output of the creek diggings, but it is conservatively estimated at \$1,200,000.

At this point the account of the financial results of the first year's operations at Nome would cease were it not for the remarkable development of the beach diggings during the summer. Before taking up this subject it will be necessary to review briefly the situation at Nome in June and the early part of July. During this period several hundred men who had spent the winter in idleness on Kotzebue Sound or in other unproductive sections of Alaska arrived at Nome, and by July 10 there were 1,000 destitute men in the camp. It was impossible for more than a very small percentage of these men to secure work, for there were but limited opportunities for employment, either on the creeks or in town. Only a small number of claim owners were working their claims; in fact, there were comparatively few claim owners in the district, since a large proportion of the claims had been located by power of attorney for nonresidents, who were holding them for speculative purposes. This idle class contended that the claims should either

be worked, thus giving them employment, or be thrown open for relocation by bona fide locators, in accordance with the letter and spirit of the United States mining laws. It was also contended (and this contention seems to be borne out by the facts) that a large number of claims had been located by aliens, principally by Laplanders in the employ of the reindeer stations. By using the reindeer furnished by the Government for the beneficent purpose of supplying sustenance to the half-starved natives along this barren coast, these favored foreigners were so well equipped for their enterprise that they frequently outstripped their less fortunate domestic competitors in the race for a rich claim. It was charged that in some instances an individual had located for himself and absent friends twenty or thirty claims, and that not a single one of these claims had ever had a pick stuck in it. A glance through the records indicates that this charge had a basis of fact. As a consequence an era of "jumping" was inaugurated, and it is no exaggeration to say that there is scarcely a claim on any good creek that was not relocated at least twice during the three weeks ending July 10; while if a claim of any value was known to have been originally located by a Laplander, he could count on half a dozen or more energetic contestants. The attorney for one of the richest mine owners in the district has furnished the following explanation as to the alleged misuse of powers of attorney: "It is alleged that a great many claims were staked by power of attorney for people living in New York, Philadelphia, and other places outside of Alaska. This is not true. I doubt whether there are more than half a dozen locations by power of attorney in the district made for people who were not in Alaska or who could not have gotten here as easily as the man who carried the power of attorney; but inasmuch as the local law, of which the recorder had a copy, permitted locations by power of attorney, a few friends would club together and give a certain man their power of attorney to go up and locate for them, rather than that all should endure the hardships. They either grubstaked the man or paid him for his services."

The "jumping" mania comprehensively embraced everything in sight. It was no unusual experience for a man who thought he owned a town lot to arise in the morning and find four or five tents on his property, all occupied by facetious squatters, who declared in response to his protests that they would stay there until the United States court was established and removed them. At this time there was no civil government in Nome, the nearest United States commissioner being located at St. Michael, 120 miles away. The responsibility of maintaining order therefore devolved upon the commandant of the small military detachment stationed at Nome, and he and his force were kept busy day and night for ten days dispersing the angry crowds which gathered on the streets and adjusting disputed titles to mining claims and town lots.

Such was the state of affairs on July 10, 1899, on which date a miners' meeting, attended by 450 men, was held for the purpose of considering the situation. At this meeting the following preamble and resolution were introduced:

Whereas it appears upon a careful perusal of the records in the district recorder's office of this district that but two miners' meetings have heretofore been held in the district, and that at the first of said meetings, held October 15, 1898, for the purpose of organizing this district, only six persons were present, to wit, A. N. Kittleson, G. W. Price, John Brynteson, Japhet Lindeberg, J. T. Tornensis, and Eric O. Lindbloom; and

Whereas at said meeting, purporting to organize said district, the boundaries were so indefinitely described that it would be impossible to ascertain that any claim was in the district without an authentic survey thereof, in that said district is not defined by any natural boundaries or watersheds, as has heretofore been the custom; and

Whereas the records of the district further disclose that a majority of the claims in the district have been located, staked, and recorded, either individually or by power of attorney, by the original locators of the district without any rule or regulation governing the location, manner of recording, amount of work necessary to hold possession of said claims, or how said claims shall be marked on the ground, as authorized and required by the United States statutes, thus omitting the requisite and necessary provision for the successful and intelligent working of the claims in the district; and

Whereas it appearing that at the first meeting organizing said district one or more foreigners were present and took part in the same; and

Whereas it has been ascertained that claims are in possession of aliens, who are holding them in the district contrary to law, and that persons so holding have been maintained in their possession by and with the connivance and assistance of certain officials illegally assuming authority so to do, and by so doing depriving American citizens of their right to locate and work portions of the public domain for mining purposes, and also that many claims have been located and are now held under false and fraudulent documents, purporting to be powers of attorney, and we believe that in many instances assumed names have been used for this purpose; and

Whereas, without going into more detail, we believe that the genius and spirit, intent and meaning, of the American mining laws have been ruthlessly violated, with a view to illegally usurping and holding a vast tract of the public domain, valuable for mining purposes, for the benefit of corrupt officials and unscrupulous corporations, to the injury of bona fide miners; and

Whereas it being clear from the face of them that the present miners' rules and regulations are wholly inadequate and unintelligible, and are not in accordance with the laws of the United States and are insufficient for the proper legal location and working of the same in the district; and

Whereas we believe that a great proportion of the claims in the district have been illegally staked and recorded without having first been prospected to ascertain the presence of mineral, as required by law; and

Whereas, ample time having elapsed since the opening of the season in which to commence work on the recorded claims in the district and it appearing that very few of the claims in the district are being worked, about 90 per cent of them being idle, we believe that said claims are being held solely for speculative purposes and that the spirit and intent of the law in this respect is being violated: Now, therefore, be it

Resolved, That it is the sense of this meeting that urgent necessity exists for the immediate passage of a set of local laws, rules, and regulations for the governance of the district, that it may be successfully and intelligently worked and the mineral resources of the district developed as rapidly as possible; that for this purpose laws governing the number of claims to be held by any one individual, how said claims shall be staked, recorded, and worked, the manner of working, and length of time they shall be worked each season, and such other necessary rules and regulations as to water rights, roads, dumping ground, etc., as may be necessary shall be adopted.

During the reading of the preamble and resolution the commandant had entered the hall with a sergeant and three privates and placed them at the upper end of the hall with fixed bayonets. At the close of the reading he peremptorily ordered the meeting to disperse. The chairman inquired by what right the order was given. The commandant replied, "You must immediately disperse, or I will clear the hall." The chairman then asked whether the meeting would be allowed to consider the preamble if the resolution was withdrawn. The commandant responded, "The meeting must disperse, and I will give you two minutes to leave the hall." The meeting then dissolved in an orderly manner.

For several days subsequent to this meeting there was much turbulence. Among those who attended the meeting were many who violently denounced the commandant for what they characterized as "the suppression of the right of free speech." The commandant defended his action by declaring that it was the intention of those present at the meeting, if they had succeeded in passing the preamble and resolution and reorganizing the district in accordance therewith, to restake all the mining property in the district, and that he was forced to take the course he did to protect vested interests and maintain law and order. Numerous conflicts occurred between owners and adverse claimants of mining property and town lots, and the situation was hourly becoming more and more serious. On July 13 the commandant promulgated the following order:

To put an end to apparent misunderstandings, the following statement is published:

All disputed titles, whether to mining claims or town lots, shall at once be brought before the civil authorities for settlement. So long as the civil authorities can handle such matters the military authorities will take no action. In case it becomes necessary for the military authorities to act, the claim or lot will be held in its condition

at the time, neither party being allowed to do any work to change the condition of the same.

While there exists no objection to the holding of orderly meetings for the discussion of ordinary business affairs, in any meeting held for the purpose of acting in district affairs no person is entitled to participate excepting claim holders. Any attempt so to participate by other persons is illegal, and the proper steps will be taken to prevent it.

Decisions and orders of the civil courts will be supported by the entire power and authority of the United States troops.

No person will be allowed to carry firearms, revolvers, or pistols. Anyone violating this order will have said firearms confiscated.

There was no civil government in Nome at this time, and all matters of dispute were perforce referred to the military authorities. By July 27 it became apparent that the continued enforcement of the rule laid down in this order in regard to the cessation of work in case of disputed titles would soon result in the stoppage of work on the creeks and nearly all building operations in town. Therefore the order was on that date amended as follows:

The instructions contained in the order of July 13, 1899, posted at Anvil City [Nome], will be amended so as to permit original locators at work on their claims to continue their work in the event that anyone jumps the claim. The matter can afterwards be settled by the civil authorities.

In the meantime an event occurred which soon solved the difficult problem and brought comparative peace to the community, a thing which the military authorities had about despaired of accomplishing. This was the discovery and rapid development of rich deposits of gold in the sands on the beach in the vicinity of Nome. Before proceeding with an account of this remarkable discovery a short description of the topography of the Nome district will be given.

The northern coast of Bering Sea, from Golovin Bay on the east to Cape Prince of Wales on the west, a distance of nearly 200 miles, is bordered by low tundra, relieved at long intervals by bold headlands extending into the sea. From Cape Nome to Cape Rodney, a distance of 50 miles, this tundra has a uniform elevation along the beach of 10 or 15 feet above high tide, rising to a somewhat greater elevation at either extremity, and extending back from the beach from 2 to 8 miles, to a low range of bald hills which flank barren mountains rising to a height of 2,000 or 3,000 feet farther inland. The tundra is covered with a thick growth of moss, and contains numerous small lakes and lagoons, many of which are but little, if any, above the level of the sea. During the summer this entire area of marsh land is almost impassable, and travel inland is exceedingly difficult. Along the entire stretch of 50 miles from Cape Nome to Cape Rodney there is a flat, sandy beach, forming a slight curve and running in a west-northwesterly direction. The width of the beach,

from the tundra to the water's edge is from 50 to 200 feet, varying with the slope of the beach and the condition of the tide. Nowhere in this vast expanse is there a shrub or tree. Along the creeks there is a meager growth of small willows, but they are of little use as fuel, and firewood and lumber must be transported from the beach. At the beginning of the season there were large quantities of driftwood, the accumulation of years, scattered along the beach. This driftwood is supposed to have been brought by the ocean currents from the mouth of the Yukon. At the present writing this source of fuel supply has been exhausted for a distance of 15 miles in both directions from Nome.

Gold was first discovered on the beach in January, 1899, and it was staked for a distance of 2 miles above and 3 miles below Snake River. The claims were of 20 acres each, and extended 1,320 feet along the beach and 660 feet back from the edge of the tundra. At that time gold was not supposed to exist in the beach itself. Only a few colors were found in the tundra, and it had been hastily staked on the general principal of locating everything in sight. It was thought that it might possibly be worked by hydraulic methods. The property was turned over to an association known as the Nome Mining and Development Company. About the middle of June fair prospects were found at the edge of the tundra near the mouth of Nome River, $3\frac{1}{2}$ miles east of Snake River, but no work was done there. Early in July a soldier stationed at the military post prospected in a little draw at the edge of the tundra, just east of the town, and washed out from 80 cents to \$1 to the pan. This created great excitement, and several rockers were immediately set up in the vicinity. The rockers were crude and the men who worked them were without experience, but they were uniformly successful, making from \$5 to \$20 a day apiece. Within a week 50 or 60 men had built rockers, and the number constantly increased until on August 5 about 400 men were rocking, being principally located on the 2 miles of beach just west of Snake River. A number of practical beach miners who had had experience in washing the ruby sands of the southern coast secured copper plates, and with this superior equipment were enabled to make from 2 to 5 ounces per day to the man. Four men, working eight days with one rocker, took from a space 24 by 30 feet and 3 feet deep \$5,200, or a little over \$162 a day to the man. As high as \$2.50 to the pan was taken out of this particular patch of ground. It was now thoroughly demonstrated that the beach was enormously rich, and the entire community caught the beach fever. Rockers were being constructed on every hand, carpenters making from \$25 to \$50 a day in supplying the demand for their crude product. By August 10 nearly a thousand men were rocking on the beach. The crowds of discontented men who had congregated on the streets

and crowded the saloons a month before had disappeared as if by magic. They were scattered along the beach for 5 miles above Snake River, where they had pitched their tents and were rocking out an average of an ounce a day to the man. During working hours the saloons and gambling houses were deserted. Many barkeepers and faro dealers spent the days in rocking on the beach, leaving a single man on watch to quench the thirst of the casual customer. Barbers closed their shops, and many others left lucrative employment in town to try their fortunes on the beach. A large number of miners who had been employed for wages on the creeks quit work, forfeiting the bonus of \$3 a day for continuous work, and joined the wild rush to the beach. A few weeks before the town had been a scene of strife and turmoil. Now nearly everybody was happy, and peace and contentment appeared to reign on every hand.

But there was trouble yet to come. Some of the owners of claims along the edge of the tundra, realizing that in the original staking a rich strip of beach had been overlooked, had set up a claim to all the ground between their front stakes and high-water mark. In a few instances they had set their stakes forward so as to include the coveted strip, and even called on the commandant to support them in their attempt to hold the ground. Several of these claim owners had "compromised" with the miners by issuing permits at 50 cents a day per man for the privilege of working in front of their property, and at one time about 400 men were paying this fee. The commandant, acting under the provision in "An act extending the homestead laws and providing for right of way for railroads in the district of Alaska, and for other purposes," that "a roadway 60 feet in width parallel to the shore line as near as may be practicable, shall be reserved for the use of the public as a highway," decided that this strip could not be staked, and declared it open to the public. In the meantime an enterprising young man from Skagway had staked this strip for $2\frac{1}{2}$ miles west of Snake River for himself by ingeniously placing his stakes so as to include this rich ground in a 20-acre claim 60 feet wide and 14,520 feet long, and by a diplomatic assumption of ownership under this location was at the time of the commandant's decision collecting a fee of 50 cents a day per man from 75 or 100 gullible miners.

On August 12 the commandant was forced to reverse his decision by the receipt of the following order from his superior officer at St. Michael:

Pursuant to instructions received from the commanding officer at Fort St. Michael, the following information is given to all concerned:

The 60-foot strip along the front of navigable waters is Government land only in the sense that it is to be kept open, when necessity demands, for the use of the public as a highway. It can be located and worked for mining and other purposes, with due regard to the observance of these requirements. Therefore, parties rocking out gold on such loca-

tions must be stopped upon complaint from the proper locators. These decisions are the opinion of the register of lands for this district. Should parties continue to violate these rulings the rockers and other apparatus must be destroyed and offenders arrested, if necessary. Holders of claims must prosecute such offenders and not depend solely upon the troops for protection of their rights.

On August 14, two days after the promulgation of this order, the general manager of the Nome Mining and Development Company called upon the commandant for a guard to support him in his efforts to remove the miners who were rocking on the company's property without permits. The commandant, with a sergeant and four privates, accompanied the general manager of the Nome Mining and Development Company to the scene of operations. He deployed his men along the beach with instructions to inform all those engaged in rocking in front of the company's property that they must immediately secure permits or cease work. The miners collected in a body and declared, through their spokesman, that they denied the right of the Nome Mining and Development Company to the disputed strip of beach; that at the time they entered upon the disputed ground it had not been staked; that they held it by right of original discovery and location, and that they would not cease work and thus surrender their rights, but would submit to arrest in a body for the purpose of making a test case. The commandant then arrested 286 men and conducted them to the barracks, where they were placed under guard. The general manager of the Nome Mining and Development Company was then informed by the commandant that it would be necessary for the company to give bonds to cover the cost of maintenance of the prisoners until such time as a civil government might be set up, when the matter could be brought before the judicial authorities. The general manager of the Nome Mining and Development Company, recognizing the gravity if not the humor of the situation, stated that he had not expected any arrests to be made, but had supposed that the men would stop work when called upon by the commandant to do so, and that in view of this misunderstanding he would waive further proceedings for the time being and take legal action against the trespassers on his property when such action became possible. Thereupon the prisoners were discharged. Most of them returned immediately to their rockers, while a few of the more exuberant remained in town to celebrate their release from captivity.

The general manager of the Nome Mining and Development Company has furnished the following statement in regard to the trouble:

The Nome Mining and Development Company is an association formed on January 23, 1899, by Wm. A. Kjellmann, Amasa Spring, jr., Arthur E. Southward, Japhet Lindeberg, and Alex. Jernes. Its object is to mine and develop ground in the Cape Nome mining district, Alaska. The property now (August 22, 1899) claimed by the

company consists of twenty-three 20-acre claims, one 15-acre claim, and three 100-acre claims. Of these, eight 20-acre claims, one 15-acre claim and three 100-acre claims were located by the company, one of the 100-acre claims being in the Sinrock mining district, and fifteen 20-acre claims were purchased from the original locators.

The first indications of gold near the beach were found in January, 1899, by Kjellmann and Spring. It was discovered in the high river bank, about one-half mile from the Bering sea, where from 15 to 20 large colors were obtained from a shovelful of earth and gravel taken from about 2 feet below the surface. A hole was also cut through the river ice at a point where it was solidly frozen, and excellent prospects obtained from the river bed. In March, 1899, the miners in the camp held a meeting, and in defiance of all protests made by the company's representatives, reserved 40 acres on each side of the mouth of Snake River for a town site. Later this was enlarged, so that at the present date (August 22, 1899) fully 100 acres of the company's mineral locations are occupied by persons who do not recognize the company's claim to the ground.

Along the beach, since the recent excitement about the gold discoveries there, the company's ground has been relocated time and again, in face of all protests and notices, until in some cases there are five or six claimants to the same ground, each locator interpreting the law so that to him his location seems to be legal.

Owing to my absence, no steps had been taken by the company, up to July 20, 1899, to assert its right to the ground. At first, our company desired to allow each man to take at least a "grub stake" out of the beach, not waiving our interests, however. The reason for allowing them to do so was common charity, there being a great number of men from Kotzebue Sound who were destitute. Then, again, it would advertise the richness of our property. The numbers of men who took advantage of the company's liberality and went to work on the beach soon became a matter of serious concern to our company, and at a meeting it was decided to issue permits to men who wished to work on the company's ground, at the rate of 50 cents a day for each man. This we considered very reasonable, as they were all taking out from \$10 to \$300 a day. In one case \$4,700 was taken out in ten days by four men. It can readily be seen the amount of money the company was losing each day when you consider that there were between four and five hundred men at work, and from various estimates that have been made, at least \$10,000 a day has been taken out of our property for the last 30 days. Notices were posted at intervals along the coast, the following being a copy:

"NOTICE.—The Nome Mining and Development Company has decided to issue permits authorizing the holder to mine with a rocker on the company's ground. Such permits may be obtained from the general manager upon payment of 50 cents per day for each person. Permits will be given for from one to thirty days. Anyone found working on the company's ground after August 6, 1899, without such a permit will be prosecuted for trespass and larceny."

Before the expiration of the time many men called at the company's office, paid their 50 cents per day, received their permits, and went to work. The man whom I believe to be the ringleader of the whole trouble stopped me on the street and said that he had several men working for him on the company's property, and that he would come

over the next day and apply for a permit for himself and his men. This speech he repeated several times, but as yet has failed to call. I took no action until August 14, when I called on the lieutenant in command at Anvil City [Nome] for two soldiers to act as a guard for our agent as he went along the beach and warned people off our property. No request to arrest anyone was made. The lieutenant responded in person, with a sergeant and four or five privates. I went with him to the western limit of our property, explained that some men had received permission to work our ground while others had not, and told him that we did not claim on the water side of our stakes. I then returned to our office and left our agent to go along the beach. About two hours afterward I heard shouting and looking toward the beach saw two soldiers marching along with some 200 miners following. Shortly afterwards I was informed by a messenger that the lieutenant wished to see me. I immediately went to him and was informed by him that he had placed some 200 men under arrest and that he wished to know what the company was going to do about it. I told him that I had not requested him to make any arrests, but merely to send over a couple of soldiers as protection for our agent. He replied that he had told the miners that they could not work on the ground without a permit and that they had said that they would continue to work unless stopped by force, and that he had then placed them under arrest. He furthermore stated that that was his interpretation of "protection." It further transpired that a large number of those under arrest were working below our stakes, near the water's edge, the lieutenant telling me that I had told him we claimed the entire beach. Of course that part of it was a misunderstanding between him and me. He released the men who had been arrested upon my informing him that our company intended to prosecute all men who worked upon our ground without permission from us. The men immediately returned to work. The next day a great number of threats were made against my life, but no actual move was made. Since then we have been awaiting the opening of the courts here.

The principal troubles here are due to the great number of different interpretations which can be placed upon all of the United States mining laws. One party says the law means one thing, and another says it means the direct opposite; and to a disinterested outsider both parties are right.

The summary action of the commandant and its unexpected outcome had a salutary effect, and from that time until the close of the season the beach was open to all who wished to work. The number of rockers rapidly increased, and by October 1 there were fully 2,000 men working on the beach. For 6 or 7 miles above Snake River there was an almost unbroken line of tents, and profitable work was carried on at various points from 10 to 20 miles west of Nome. There were no formal regulations as to the size of rocker claims. Miners placed their rockers on unoccupied ground and marked off spaces, usually from 15 to 25 feet along the beach, and by common consent held undisturbed possession until they had worked out their ground, when they moved farther up the beach.

The beach gold is fine and difficult to save without copper plates,

which were scarce and expensive last fall. The gold is found in two principal pay streaks running along the beach and varying greatly in richness and width. The richest pay streak was found on the upper edge of the beach, next to the tundra. This varies in width from 10 to 30 feet, and in many places extends under the tundra, but here the frozen ground makes rocking unprofitable. Lower down on the beach, near the water's edge, another rich pay streak exists which varies from 10 to 20 feet in width and in many places is as rich as the upper one. At several points intervening pay streaks are found, and in some localities the pay extends the entire width of the beach, but this is exceptional. The gold is found in a layer of ruby sand, generally from 1 to 4 feet below the surface. The pay dirt varies in thickness from 1 to 6 inches and lies on a false bed rock of muck or blue clay. In several instances a second layer which proved richer than the first was found. Many marvelously rich spots were worked, most of these being at the mouth of small draws at the edge of the tundra. Sand yielding from \$5 to \$20 to the pan was frequently found in these rich places, and as high as \$72 was washed from a single pan. Coarse gold exists in some localities, pieces weighing from 50 cents to \$1 being common, and a 2½-ounce nugget was picked up near the water's edge several miles above town. There were many well-authenticated instances in which men averaged over \$100 a day for a month or more. The best returns reported were secured from an exceptionally rich spot about 7 miles west of Nome. Here three men, using one rocker, in forty days took out \$32,000. From a hole 12 feet square and 4 feet deep they rocked out \$9,000 in three days.

Work has been actively prosecuted on the beach during the winter, and it has been demonstrated that in many places wages can be made by rocking in tents or cabins. Between Snake and Penny rivers, a distance of 10 miles, 138 cabins were built last fall, and many of the occupants are taking out pay dirt and rocking it out or making dumps which will be washed up in the spring. About the 1st of January, at a point 6 or 7 miles west of Nome, a hole was sunk through the ice 150 feet from shore. One shovelful of sand from this hole yielded an ounce of gold. The inflow of water prevented further prospecting at that time; but the finding of such rich sand that distance from shore gives encouragement to the belief prevalent here that the richest portion of the beach is submerged. If this proves true it will offer an almost inexhaustible field for dredging operations.

No satisfactory estimate of the output of beach gold can be made, for the reason that comparatively little of it passed through the hands of the commercial companies. As a rule the miners were reticent about their affairs; but a large number admitted that they had taken out from \$2,000 to \$5,000 apiece, and showed the gold dust to substantiate the admission. It is probable that the beach produced between \$1,750,000 and \$2,000,000.

No thoughtful man who walked along this golden street in the bright sunlight of last October will ever forget the picture presented there. For many miles along the beach double ranks of men were rocking, almost shoulder to shoulder, while their partners stripped the pay streak and supplied the rockers with water and pay dirt. Nearly all were working with an energy and dogged perseverance which suggested the husbandman shocking his sheaves and now and then casting anxious glances at the black cloud fast rising in the west. Others, seemingly less fearful of the future, were passing jokes or singing as they worked. Scattered along the lines were many of the poor fellows who had been brought down on the revenue cutter *Bear* or on coasting schooners from Kotzebue Sound, where they had spent a winter of indescribable hardships. Ragged and half starved, and in many cases suffering from scurvy, they had been cast on the beach at Nome like driftwood, their only hope being that they might secure transportation to Puget Sound on a revenue cutter, for which they would be forced to pay the highest price ever charged in this country of high prices—the affidavit of a “destitute.” They had had visions of wealth in the north which they had failed to realize through no fault of theirs, unless it be a fault to believe too implicitly what one reads in popular accounts. But here, in this barren, forbidding waste, their dreams were coming true; for there was scarcely a man in either of these long lines of happy workers who could not return home at the close of the season with gold enough to enable him to spend a restful winter among his friends and bring him back next spring to the scene of his labors. In front of the tents men were “cleaning up,” and in numerous cases securing from 30 to 40 ounces from the day’s run of a rocker. Among these was an old gray-haired miner who had spent twelve years on the Upper Yukon, where he had never made enough in any one season to carry him through in comfort to the next. With trembling hands he exhibited the receipts of a commercial company for over \$6,000 worth of gold dust which he had rocked out in less than 60 days, and exultantly cried, “Thank God! I’m going home!”

It is probable that nowhere in the world has there ever before existed for so long a period a field of production which yielded such magnificent returns to honest labor and at the same time offered such poor opportunities for that class of men who live on the labor of others. No further attempt was made during the fall to drive the miners from the beach, for the sentiment of the community was against such action; but every outgoing steamship carried one or more paid attorneys bound for Washington in the interest of some hastily organized exploitation company. It has been impossible to secure sufficient details from interested parties here to justify a statement as to their designs. It has been equally impossible, for the reason that the United States mail service is still inefficient at

this point, to learn what their agents are doing in Washington. It may be assumed, however, that there is now at the national capital a thoroughly equipped contingent of procurers seeking concessions which shall enable their principals to acquire possession of the Nome beach and thus divert from its legitimate channels the vast wealth which lies buried there. The beach ought to be reserved, under proper regulations, for the exclusive benefit of working miners.

The successful operations on the beach and the incidental discovery that the pay extends under the tundra attracted attention to that hitherto unpromising stretch of barren marsh land. In a very short time all the tundra in the immediate vicinity of Nome was staked in 20-acre claims, and some prospecting was done during the fall. Colors were found everywhere, but the inflow of surface water prevented the sinking of holes to a sufficient depth to prove whether or not the tundra would pay. Enough was done, however, to indicate that this vast area was built up by the sea, which is constantly receding and leaving a deposit of gold-bearing ruby sand that may be as rich as that now so easily worked on the beach. This is conclusively shown in some localities by the existence of driftwood far below the surface at points a mile or more inland. During the winter active prospecting has been carried on near the town of Nome. A hole is being sunk at the eastern end of the town, about 500 feet from the beach. The ground was frozen to a depth of 16 feet, and at a depth of 22 feet a stratum of oil-bearing sand was struck. At 23 feet the original ruby sand of the beach was reached and showed prospects of 30 cents to the pan. There is no doubt that the tundra in this immediate vicinity will pay, and preparations are being made to work it on a large scale. Two miles inland, near the mouth of Anvil Creek, a hole sunk in the tundra has shown from 35 cents to \$1.50 to the pan at a depth of 18 feet, and bed rock has not yet been reached. In commenting on these new discoveries the Nome News says:

Prospecting the tundra was suggested by Prof. Angelo Heilprin, the eminent geologist of the Philadelphia Academy of Sciences, who made a brief examination of this section last fall. Professor Heilprin was enthusiastic over the camp and its prospects. He believes that a vast ledge exists somewhere out in Bering Sea from which the gold has been deposited on the beach and in the adjacent tundra, which was once the bottom of the sea. He also thinks that the bench claims of this section will prove richer than the creek claims.

In the same issue the News refers to this subject editorially as follows:

That the tundra which skirts the coast of Bering Sea for hundreds of miles will be found to be rich in gold seems to be a fact that is fast approaching the fullest demonstration. Mining men of large experience, and mining experts who have devoted much attention to the tundra as a probable gold producer, unite in the opinion that the

tundra will prove to be almost incalculably rich in places. Gold is diffused throughout these long stretches of waste land, and where bars have been formed by the action of the winds and waves, at a time when Bering Sea covered these plains clear to the mountains, will be found vast deposits of the precious metal. Prospecting that has already been done seems to prove this statement, and work now under way and contemplated before next spring will prove beyond a peradventure that this section is really what many of us believe it to be, the greatest gold field of any age or country.

As intimated in the foregoing extract, it is now almost conclusively shown that gold exists in paying quantities throughout the entire length of the coast from Cape Darby to Cape Prince of Wales, a distance of more than 200 miles. The beach itself is rich for 30 miles west of Nome, although showing some short stretches which will not pay under present methods. Good prospects are found all the way along the beach from Nome to Golovin Bay, about 70 miles, and near the eastern limit of this stretch of beach \$2 to the pan has recently been found within 6 inches of the surface. It can be asserted with confidence that the beach will pay (with barren spots here and there) for more than 100 miles, and nearly all the creeks along this stretch of beach and far inland have shown good prospects. Reports from Port Clarence, 85 miles west of Nome, indicate that the beach there will pay. Cape York, 25 miles still farther west, is attracting considerable attention, and reliable men report that many of the creeks there are rich. The Bonanza mining district, which adjoins the Cape Nome mining district on the east, contains many creeks which show good prospects and which will be worked next summer. The Norton Bay country, which has been pretty thoroughly prospected this winter and from which good results were expected, has proved a disappointment. The Ungaliktolik River, which flows into Norton Bay from the eastward, was the scene of a small stampede during December and January, and 40 or 50 experienced miners prospected its tributaries, but did not find anything of value. Reports from Bonanza Creek, a short stream emptying into the Ungaliktolik 7 miles from its mouth, indicate that 25 cents to the pan has been found near the surface, but these reports lack confirmation. It would seem that the gold belt runs in a northeasterly direction from Nome, across the upper half of Golovin Bay, and thence toward the head waters of the Koyukuk, thus leaving Norton Bay far to the southward. But the immense area of gold-bearing country already proved in this vicinity undoubtedly marks this as the most extensive placer-gold field that has been opened up since the discovery of gold in California.

Some promising discoveries of quartz have been made in the vicinity of Nome and on Golovin Bay. At the head of Nome River free-milling gold ore has been found, running as high as \$270 to the ton. On Fish River there are large deposits of galena ore, carrying 140 ounces

of silver to the ton, which were worked for many years, the ore being shipped to Puget Sound as ballast. The low price of silver during recent years has rendered operations unprofitable, and the mines are lying idle. On the eastern shore of Golovin Bay, about 20 miles from Cape Darby, a ledge of hematite ore has recently been discovered. The ledge is 30 feet wide, lies between granite and porphyry, and is traceable on the surface for more than 4,000 feet up the mountain side. Blow-pipe assays show from \$12 to \$20 in gold to the ton. This ledge is within 3 miles of the beach, where the largest ocean vessels can anchor safely within 300 feet of the shore. If the indications are confirmed by development, this ledge will rival the great Treadwell at Juneau.

The number of claims recorded in the Cape Nome mining district up to January 10, 1900, was approximately 4,500. Of these, 300 were tundra claims, 275 beach claims, and 75 quartz claims. About 500 claims were located prior to January 1, 1899, and of these nearly 300 were open for relocation on January 1, 1900, through the failure of the owners to perform representation work during the calendar year next succeeding the year of location, as required by the United States mining laws. All of these unrepresented claims were relocated, a large number of them several times over, during the first hours of January 1. The number of location notices filed for record during the ten days ending January 10, 1900, was a little over 500, and at that date notices were being filed at the rate of 50 per day. There are more than 400 creeks and gulches in the district which have been given names and on which locations have been made. The fee for recording a location notice or transfer is \$2.50. The staking of claims by power of attorney is permitted in the Nome district, a fee of \$25 being charged for recording the power of attorney, of which sum \$22.50 is turned over to the hospital fund. In some of the new districts location by power of attorney is not allowed, while in others the fee for recording such instruments ranges from \$100 to \$500, practically prohibiting their use.

At the time of the discovery of gold on the beach the outlook for the district was far from encouraging. The returns from the creeks had not been sufficiently large to justify the belief that anything extraordinary would be developed. Most of those engaged in commercial enterprises lacked confidence in the future of the camp and shaped their affairs accordingly. One of the leading commercial companies, which prides itself on being the pioneer in development of new mining districts in this region, shared the general timidity, and as a consequence landed its stock of merchandise too late in the season to share in the first year's prosperity. Two or three hundred experienced miners from the Klondike, on their way home, visited Nome during the latter part of last June and the first half of July. With

few exceptions they condemned the creeks, contending that the ground was "too shallow to pay," and intimating that the Nome excitement was simply a "boom" originated by the transportation companies. On their arrival in Seattle and San Francisco their adverse reports stopped the movement to Nome. The agent of one of the transportation companies stated that the unfavorable impression created in the States by these reports resulted in the cancellation of 250 reservations of passage by his line. The residents of Nome owe a debt of gratitude to the incredulous millionaires from Dawson. These Klondike magnates could have bought for a bagatelle nearly all the rich claims in the district; but through lack of faith in muckless mines they let millions of dollars slip through their fingers. The lucky owners, who were greatly disappointed because they could not unload for what they now know to have been ridiculously low prices, are congratulating themselves because they did not sell. A number of Klondikers made investments, securing some of the best claims in the district, and have transferred their allegiance to Nome.

The first cargo of lumber arrived on June 29, and was quickly disposed of at \$100 per 1,000 feet. Many buildings were immediately erected, but they were of cheap construction. Most of the business enterprises were carried on in tents, and it was not until after the development of the beach diggings that extensive building operations were begun. The price of lumber advanced during August to \$125 per 1,000, and toward the close of the season it rose to \$250. In some instances \$500 per 1,000 was paid, to complete buildings in course of construction. The town extends along the beach for a mile or more, and for half a mile is solidly built up. As the season advanced, the character of the buildings improved, and there are now several two-story buildings, costing from \$10,000 to \$15,000 apiece. The Alaska Commercial Company conducts its business in a large store building, and has two large warehouses; the North American Transportation and Trading Company has a warehouse and a two-story building, which is the largest and finest structure in town; the Alaska Exploration Company has a store building two stories in height, and the Kimball Company occupies one of the finest buildings in town. Claffin Brothers have a large two-story building, in which they conduct a general merchandising business, and there are a number of smaller concerns, which enjoyed a good trade as long as their stocks held out. All of the large companies appear to be doing a profitable business at Klondike prices.

Late in October the regular annual "grub scare" occurred. There was an almost unanimous belief that the food supplies in the district would not last till Christmas, and starvation once more "stared everybody in the face." At this crisis the commercial companies practically doubled the prices of their commodities, and the wages of com-

mon laborers advanced to \$2 per hour. It has never been satisfactorily determined which of these sudden economic changes occurred first. The merchants claim that their laborers struck for an advance, which they granted, and at once raised their prices. The laborers, on the other hand, contend that the merchants were the aggressors, having advanced prices without tendering them a corresponding advance in wages, and that they were forced to strike in order to maintain their standard of living. These events were so nearly simultaneous that the contest as to priority must be declared a draw.

The food panic caused a large number of people to take passage for the States, and in the meantime two or three steamships, long overdue, arrived with supplies. As a consequence, the community is amply provided with all the necessities and many of the luxuries of life, and prices are now (March, 1900) practically the same as they were during the summer. A few quotations are given of the prices fixed by the commercial companies January 1, 1900, the quotations being per pound except where otherwise stated: Bacon, 35 cents; baking powder, \$1; beans, 12½ cents; beer (per dozen quarts), \$5; butter (canned), \$1; candles (per box of 120), \$4; coal oil (per gallon), \$1; coffee, 50 cents; corn meal and all cereals, 12½ cents; crackers, assorted, 40 cents; crackers, soda, 25 cents; eggs (per case of 30 dozen), \$40; flour (per 100 pounds), \$5; ham, 40 cents; lard, 20 cents; mackerel (per kit), \$5; molasses (per gallon), \$2; sugar, 25 cents; tea, \$1; tobacco, all common brands, \$1.50; whisky, \$12 per gallon and \$30 per case.

During July and August five or six restaurants did a good business, charging \$1 for a regular meal, with choice of fresh beef, or reindeer, or ham and eggs. A dinner by the card cost from \$1.50 to \$5, the fare being much better than like prices command in Dawson. Toward the end of the season prices advanced greatly, and during the latter part of October a meal like that for which \$1 was charged in August, cost \$4 or \$5. Some of the prices were as follows; Porterhouse steak, \$2.50; tenderloin steak, \$3; plain steak, \$1.50; reindeer steak, \$2; ptarmigan, \$2; pork chops, \$1.50; mutton chops, \$1.50; boiled mackerel, \$1.50; corned-beef hash, \$1; pickled pigs' feet, \$1; cold ham, \$1; hamburger steak, \$1.50; sardines, \$1; ham and eggs, \$2; dried fruit, 50 cents; hot cakes and maple sirup, 75 cents; coffee with bread and butter, 50 cents. Since the reduction of store prices to the old figures there has been a corresponding reduction in restaurant charges, and a good meal now costs from \$1 to \$2.50. If a patron wishes wine with his dinner, his wish can be gratified by the payment of \$3 for a bottle of claret or \$7.50 for a small bottle of champagne.

There were no fixed rates of wages in town at the opening of the season. Carpenters received \$1 per hour as a rule, and common laborers were paid \$7.50 per day. Later in the summer the wages of

carpenters advanced to \$1.50 per hour, and remained at that figure until building operations ceased. Wages of common laborers soon rose to \$1 per hour. Just before the close of navigation the commercial companies were obliged to pay \$2 per hour to a large force of men for a short time to unload their vessels. Wages on the creeks, as before stated, were \$5 per day and board, with a bonus of \$3 at the end of the season for continuous service. The developments on the beach caused many miners on the creeks to throw up their work and engage in rocking. During September and October \$12 per day, with board, was paid to a few men on the creeks, but it was difficult to secure men even at this increased rate. A number of men are employed on the beach and on the creeks this winter at \$100 per month and board.

The fuel problem has given the community great concern throughout the winter, and it is becoming a very serious matter for people of limited means. The visible supply of coal at the close of navigation was less than 1,000 tons. The regular price then was \$75 per ton, but speculators readily obtain \$125 for all they can command. Coal is sold by the sack at a price which makes it cost the consumer \$200 per ton. Nearly all the driftwood on the beach for a distance of 15 miles in either direction from town has been used in the construction of cabins or for fuel, and before warm weather comes it may be necessary to go 10 miles farther to get good wood. A large proportion of the driftwood is rotten and furnishes but little heat. Wood of ordinary quality sells for \$35 per cord, while from \$50 to \$75 per cord is readily obtained for the best. Fortunately the winter has been exceptionally mild. The weather has been delightful, nearly every day being bright and clear. The highest temperature during October was 45 degrees above zero, and the lowest 21, the mean being 33. For November the highest was 31, the lowest 2, and the mean 19. The highest in December was 35 above, and the lowest 38 below zero, the mean being 8 above. In January the highest temperature was 29 above, the lowest 38 below, and the mean 3 above zero. The mean temperature for the four months was 16 degrees above zero. The snow fall has not exceeded 18 inches, and the snow disappears as fast as it falls on account of the prevailing winds. If it were not for the severe winds the weather during the entire period under consideration would have been perfect. The highest velocity of the wind recorded was as follows: In October, 30 miles per hour; in November, 40; in December, 15; in January, 45. There were not more than twenty days when it was disagreeable to be out of doors. The wind seldom blows when it is extremely cold.

At the beginning of the beach excitement there were 8 or 10 saloons, but by the close of the season the number had increased to 20. The price of drinks and cigars in most of the saloons is 50 cents, but there are a few 25-cent houses. At the height of the season one of the

leading saloons took in from \$2,000 to \$3,000 a day over the bar, and also conducted a highly-productive gambling department. The margin of profit in the whisky traffic is much greater than in Dawson, for retail dealers ship their liquors direct from Puget Sound at freight rates, which add comparatively little to the original cost.

A careful canvass of the town, made on November 25, with a view of ascertaining the number of commercial enterprises, professions, trades, etc., represented, showed the following result: Six bakers, 20 saloons, 5 laundries, 12 general merchandise stores, 3 second-hand stores, 4 wholesale liquor stores, 4 hotels, 6 restaurants, 6 lodging-houses, 4 real estate offices, 2 paper-hangers, 3 fruit and cigar stores, 2 tinshops, 4 drugstores, 2 photographers, 1 brewery, 3 watchmakers, 2 sign-painters, 2 meat markets, 1 boot and shoe store, 1 book and stationery store, 3 packers and forwarders, 2 dentists, 11 physicians, 16 lawyers, 1 mining engineer, 2 surveyors, 4 bath houses, 1 massage artiste, 1 bank and safe deposit, 2 printing-offices, 1 confectionery store, 1 blacksmith shop, 1 assay office, 2 contractors and builders, 2 hospitals, 4 barber shops, and 2 clubs.

The population increased rapidly from the middle of September to the middle of October. Early in September the reports from Nome began to gain credence in Dawson, and within a week or two a stampede was on which taxed the capacity of the available steamboats to the utmost. Probably 2,500 people left Dawson and upper river points for the new gold fields, a large number who could not secure passage on steamboats undertaking the journey in small boats. About 1,500 reached Nome during the fall, while the other 1,000, who were caught by the freeze-up at various points on the river, are now making their way over the trail to their destination. At one time during October there were nearly, if not quite, 5,000 people in the district, but probably half of these sailed for the States, making the present population of the district about 2,500. The last steamer sailed on November 3.

The governor of Alaska and the judge of the United States court at Sitka visited Nome about the 1st of September on a tour of inspection, and they have no doubt made reports on the situation to their respective departments at Washington. A United States commissioner was appointed and qualified early in September, and gave the community its first experience in civil government administered on the spot. His jurisdiction being merely that of a justice of the peace, all important legal controversies are held in abeyance until a court of competent jurisdiction is established.

On September 15 a municipal government was established and city officers elected. There is no law providing for a municipal form of government, but the existing organization was considered a necessity, and with few exceptions receives the hearty support of all classes.

The city officials receive salaries ranging from \$100 to \$300 per month. There is a volunteer fire department, under the control of the city government, and strict fire regulations are enforced. The police force, which consists of a chief and three patrolmen, maintains good order. Only one murder has been committed, and petty crimes are no more prevalent than in towns of like size which are favored with a legal form of government. The expenses of the city government are defrayed by a property tax. The rate of taxation is $1\frac{1}{4}$ per cent on a total valuation of \$1,556,650.

There is a lucrative field here for the exercise of legal talent, but it is fully and uniquely occupied by the fifteen or twenty lawyers now on the ground. Nearly every rich claim in the district is encumbered by from two to ten lawsuits, which can not be tried until a court is provided. In the meantime the original claimants and the numerous contestants are taxed to the limit of their resources to supply the sinews of war. In addition to all the cash in sight, the usual contingent fee in such cases is a half interest in the property involved. Some of the more conscientious attorneys have been content with a third interest, but such displays of diffidence are rare. Early last spring the original locator of a rich claim employed a prominent attorney to defend his title against a number of adverse claimants who were giving him the customary trouble. By a series of brilliant stratagems, which probably owed their inspiration to no recognized code of procedure, his legal protector succeeded in quieting title, but the result was not exactly what he had hoped for. The attorney and one of the adverse claimants now own the property, and the former is supposed to be in Europe enjoying the fruits of his first season's "clean-up," while the original locator is out in the hills prospecting for another rich claim.

The condition of Nome as regards sanitation is similar to that of Dawson in 1897. The town is situated on a flat, and during the summer months a pedestrian in crossing the town site sinks nearly to his knees in the moss and muck. There was much sickness toward the end of the season. The city physician has furnished the following statement:

Up to the present time (January 8, 1900), there has been little done by the municipality in regard to draining the surface or providing a system of sewers. Individual property owners are required by law to ditch and drain their lots. The municipality contemplates establishing a sewer system which will carry the drainage and sewage into Bering Sea as soon as funds are available for that purpose.

The general healthfulness of this locality seems not so good as that of camps on the Yukon River in United States territory, due, I think, to the absence in this district of timber, and to the comparatively small size of the streams which supply our fresh water; therefore the surface water with its organic matter is not as thoroughly aerated in its travels as is the water of the Yukon or mountain streams.

The prevailing diseases last summer and fall were bloody dysentery, typhoid fever, rheumatism, pneumonia, and mercurialization. During the latter part of the summer dysentery was very prevalent, so much so that one would see blood in every public convenience. It affects the newcomers principally, and lasts from several days to several weeks. It is due to the water, and is found much aggravated in drinking men. Mercurialization was a common and annoying affliction, but was due entirely to carelessness in "burning out" amalgam. Typhoid fever was extremely prevalent in the fall and early winter, due to failure to boil drinking water and general disregard of health rules by the individual. Pneumonia occurred principally in connection with typhoid fever.

I anticipate a great amount of sickness next summer and fall. While every effort will be made to keep the camp in a good sanitary condition, and every precaution taken against disease, the crowding together of the great number of people who will come here next summer will make it almost impossible to limit the spread of disease.

The health department was not organized until early in October. Since that time many necessary health ordinances have been passed by the municipal council. A hospital for the indigent sick was at once established by the municipality and opened for patients on October 6. Since then there have been 37 indigent cases (nearly all of which were typhoid fever) treated there, with 2 deaths. The number of deaths that have occurred in town since last summer is about 40. There have been 3 births, 2 of them of white parents, and 1 half-breed.

The most interesting topic of discussion here during the long winter evenings is the future growth of the town. There are many ardent enthusiasts who believe that Nome will soon outstrip Dawson in population and commercial importance. They show their faith by offering prices for town lots which would be considered, even in Dawson, good returns on the original investments. A business lot, centrally located, which was bought last September for \$560, could have been sold in January for \$4,000, but the owner decided to hold it for the expected "boom" next summer. There will no doubt be a large transient population here during the coming season, but the geographical conditions do not justify the belief that Nome will ever contain a permanent population equal to that of the Klondike metropolis. Dawson is the natural gateway of the Klondike gold fields, and will continue during the lifetime of the mines to be the most important town in that region. At Nome the conditions are entirely different. There is no harbor. The beach stretches away in a straight line for many miles in either direction. The water is shallow, and when the sea is rough, which is almost always the case, large ocean vessels can not anchor safely within a mile of shore. The expenses of unloading are great, and much loss has resulted from attempts to land on the beach when the surf was running high. Two or three small schooners and steamboats were wrecked last fall, and one barge-load of merchandise valued at \$20,000 was washed overboard and lost. As a consequence, the transportation companies are seeking safer and less expensive points for discharging

cargo. The mouth of the Nome offers somewhat better facilities for landing than the mouth of the Snake, and a town is likely to spring up there. Port Safety, 21 miles east of Nome, is the natural distributing point for the Bonanza district. If that district proves as rich as present prospects would seem to indicate, a large town will undoubtedly grow up there. Golovin Bay offers safe anchorage close inshore for the largest steamships, and will naturally command the commerce of that section. Eighty-five miles west of Nome, Port Clarence is the first point in that direction which affords comparatively safe anchorage, and will without doubt be chosen by the transportation companies as the distributing station for that region. There are several points between Nome and Port Clarence where as good anchorage can be found as at Nome. In view of the conditions described, it can safely be predicted that Nome will never contain a large permanent population, but that a chain of prosperous towns will spring up along the coast from Golovin Bay to Cape Prince of Wales at such points as the local conditions shall determine to be most favorable.

An important factor in the consideration of this question is the projected railroad along the coast. A preliminary survey for such a road was completed last fall from Port Safety to Port Clarence, a distance of over 100 miles. This survey showed the distances to various points along the coast to be as follows: West from Nome—Penny River, 10 miles; Cripple Creek, 12 miles; Sonora Creek, 16 miles; Sinrock, 26½ miles; Cape Rodney, 32 miles; Fairview River, 50 miles; Port Clarence, 85 miles. East from Nome—Nome River, 3½ miles; Hastings Creek, 10 miles; Cape Nome, 13 miles; Port Safety, 21 miles. A company was organized, and it has sent its agents to Washington to secure a franchise. It is the intention to construct a narrow-gauge railroad along the edge of the tundra and tap the various mining districts with side lines from 5 to 25 miles in length. Such a road could be economically constructed, for no expensive cuts would be required except at three or four points where headlands encroach on the sea, and for almost the entire distance ballast is ready at hand on the beach. The prime mover in this enterprise, although an old man, enthusiastically expresses the belief that he will live to see his road connect with the trans-Siberian railroad and to ride from Cape Prince of Wales to Chicago in a through Pullman.

The crying need of this long-neglected part of Alaska is a strong civil government which shall insure to the humblest citizen the same rights of property that are accorded to combinations of capital, and which shall make it impossible for a few men to locate vast areas of rich mineral lands for their own benefit and to the exclusion of the working miner. Congress at its last session passed "An act to define and punish crimes in the District of Alaska and to provide a code of criminal procedure for said District," but failed to pass an act provid-

ing for a code of civil procedure, which it had under consideration at the same time. The Nome Gold Digger, in commenting upon this remarkable discrimination, pertinently says:

United States Marshal Lee and associates in office are collecting the United States taxes imposed some time since. The law permitting the taxes was one of three others, all of which were to be passed and form a complete law for the people of Alaska. This single law only passed, however, and it is a cinch and an imposition; but there does not seem to be any way to avoid the payment of these taxes, which take so much money out of local circulation and cause its shipment to Washington without returning any equivalent. The list is as follows, the tax being per annum:

Abstract offices, \$50; banks, \$250; boarding houses, for ten or more guests, \$25; brokers, \$100; billiard rooms, \$25 per table; bowling alleys, \$25; breweries, \$500; bottling works, \$200; cigar store or stand, \$25; drug stores, \$50; hotels, \$50; halls, public, \$10; jewelers, \$25; mercantile establishments doing a business of \$100,000, \$500, of \$75,000, \$375, of \$50,000, \$250, of \$25,000, \$125, of \$10,000, \$50, under \$10,000, \$25, under \$4,000, \$10; meat markets, \$20; physicians, \$50; peddlers, \$25; restaurants, \$25; ships and shipping, ocean and coastwise vessels, \$1 per ton net tonnage.

The reader with a taste for figuring, by referring to the list of business houses, professional men, etc., given elsewhere, and comparing it with the foregoing schedule, can obtain an approximate idea of the tax-yielding capacity of the community. As one glances through the schedule the question naturally arises in his mind, Why did the lawmakers spare lawyers?

The sentiment of the community on the question under consideration is well expressed in the following statement furnished by an old placer miner who has been for several years a resident of Circle City. Although the statement was prepared with special reference to conditions on the Upper Yukon, it is applicable to all parts of northern Alaska:

The placer-mining industry in the interior of Alaska is paramount to all other interests. It is all there is to induce white men to come into the country and keep them here. Indeed, it is everything, for without it the interior would be but little different from the other vast arctic wilds on this continent. A few trading posts, hundreds of miles apart, would be all that would be here. The advent of civil government into the interior of Alaska brought with it the introduction of the United States mining laws, which in the States may be all right, but here their application to placer mining is mischievous and ruinous. The United States mining laws give a man 20 acres for a placer claim, which everyone here knows is more ground than one man can possibly work in a long lifetime, as the frozen ground and other difficulties to be surmounted make the working of even a small fraction of that area an enormous task. In British Columbia a man is allowed only 100 feet of a creek for a placer claim. Experience has proved this to be quite enough for one man if the claim is good and more than enough if the claim is not good, and if a man is off his claim for three

days during the working season without a valid excuse the claim is liable to forfeiture. The United States mining laws allow a man 1,320 feet along a creek by 660 feet in width, and give him a year from the 1st of January following the date of location to do a hundred dollars' worth of assessment work, or ten days' work in this country. It also permits the location of claims by power of attorney. It will thus be seen that a few persons can locate a creek, say in the early part of January, and neither do any work on it themselves nor allow any one else to work it for nearly two years. The natural result of the adaptation of this outrageous and stupid piece of legislation to placer mining in this country is shown by the fact that as soon as a creek that shows any signs of gold is discovered it is at once staked from end to end, and then practically abandoned in the hope that someone will find pay on some part of the creek, and thus give a speculative value to all the other claims. At the present time there are several gangs of speculators going around the country, who have never worked in their lives and never intend to, who have located and practically locked up about a dozen creeks, so that no one will know what is in them until a year or two has elapsed, when it is believed that they will again be open for relocation, as by that time it is hoped that these good-for-nothings will be forced to leave the country on account of impending starvation. The worst feature of the case is that hundreds of others, who are willing to work and earn a living honestly, will also be forced to leave for the very same reason. Bad as the condition of things is on the Upper Yukon, it is even worse over on the newly-discovered Koyukuk, as there I am credibly informed that it is not at all unusual for a man to go up a creek on a moose hunt and as he proceeds stake out the whole creek, of course using different names. One man, with whom I am personally acquainted, told me that he had altogether 103 claims, which means that he has about 26 miles of supposed placer ground locked up for a year or two. He also mentioned the names of several others who have even a still greater number of claims than he has. The result of the application of the United States mining laws to placer mining in the interior of Alaska need not be further commented upon, more than to say that it furnishes an explanation of the statement that is everywhere made that "the country has gone to the dogs," or, in better language, "the country is ruined," as the miners who are willing to work have about lost hope and courage and all interest in the country, and do not care to make any great effort to find gold while the present conditions exist. It seems certain that if the present condition of things continues it will not be long before the country will be left to the Indians, the Government officials, and the troops of soldiers that have been stationed here to keep in subjection a people who have proved themselves to be the most capable of governing themselves of any people this world has ever known. Previous to the introduction of civil government the country was ruled by the miners themselves, and laws were made and enforced that were well adapted to the conditions and needs of the country, and of course were fairly satisfactory. During those times crime was almost unknown, and life and property were quite as secure as it seems possible for them to be in the best-ordered community in the world. As it is now realized that those times are forever past, they are looked back to with sincere regret, although all the conditions of life were then extremely hard in every respect. In those days lawyers, professional gamblers, and professional politicians

were not wanted, and, in fact, any man who would not work for a living was not wanted, and would not be endured; and I have not the slightest doubt that the future historian of the interior of Alaska will say of this country, as Bancroft said of California when it was in the hands of the vigilance committee, that it then possessed the best government it ever had or is ever likely to have.

During the days when miners' laws prevailed no man was allowed more than one mining claim in a district, and that not more than 500 feet in length, and he was required to work his claim for a full month during the working season, and if he was not on his claim on the first day of the month designated and every other day during the month, the claim was liable to forfeiture, and anyone else that wanted the claim could take it. As for a patent or title to a placer claim, no one ever thought of or wanted one. The honest, hard-working miner neither asks nor cares for anything more than to be permitted quietly and peaceably to work out his claim, and when he has done this he cares no more for the claim than the burglar cares for the safe he has just robbed. After a creek has in this way been worked out the United States mining laws could be enforced with perfect propriety, as all future work would have to be done by the capitalist, and the speculator might then be allowed his opportunity.

This statement is worthy of careful consideration, for it undoubtedly voices the unanimous opinion of miners of the old school and all others who have studied the subject from an unselfish point of view. It is just as undoubtedly true, however, that but a small percentage of those who decry the abuses complained of are proof against temptation when the opportunity arises to do likewise. Even the honest old man who made the foregoing statement, when asked whether or not he would stake a few claims for his relatives if he had an opportunity, scratched his head thoughtfully for a moment and then replied, "Well, I never thought of that; perhaps I would—if I had a chance." This frank answer suggests the remedy. No man ought to have a chance to locate more than one mining claim in a district. Of course no mining regulations which might be adopted by the General Land Office would entirely correct the evils existing in this region, for everything in sight, from the edge of the sea to the distant mountain peaks and far beyond, has been located, and in many instances "jumped." But proper regulations would be of incalculable benefit to the pioneers now turning their faces toward the undiscovered country to the North and East. A placer-mining law practically embracing the following features would give general satisfaction to the miners of northern Alaska: The establishment of mining districts by natural geographical boundaries; a system of recording under the supervision of the register of the district land office; the limitation of the size of creek, bench, and tundra claims to 500 feet square, and of beach claims to 50 or 100 feet along the beach; a restriction of the number of locations by one person to one claim in a mining district and five claims in a land district, and a requirement of at least sixty days' actual work on a claim during the open season.

The question will naturally arise in the mind of the reader, "Is Nome a second Klondike?" It does not as yet appear that any creek in the Nome district is as rich as Eldorado; but many experienced miners who are familiar with both districts express the belief that Anvil, Glacier, and Dexter creeks and Snow Gulch will produce as much gold as any like extent of creek diggings on the Klondike, and that the ultimate output of this gold belt will largely exceed that of the Klondike district. But the two districts, owing to widely differing conditions, are not comparable from an economic point of view. On the Klondike the gold as a rule lies under frozen muck at a depth varying from 15 to 40 feet, and the cost of extraction is therefore enormous. On account of the royalty exactions and the great cost of operation, claims showing a gross output near the \$100,000 mark have been worked at a small margin of profit, while many others can not be operated without a large initial outlay of capital. At Nome the conditions are entirely different. Bed rock is found on most of the creeks at a depth varying from 2 to 5 feet. When stripped of its covering of moss and exposed to the hot summer sun the ground quickly thaws to bed rock and can then be shoveled into the sluice boxes at small cost for labor. The average expenses of operation of claims on Eldorado are probably fully 50 per cent of the gross yield. The owner of a rich claim on Anvil reports that his expenses last season, when much dead work was done, were less than 10 per cent of his gross output, and this percentage will hold good in many other localities. Freight from Puget Sound can be delivered on the beach at Nome for less than \$15 per ton, and the creeks are easily accessible from the beach. These advantages place the Nome district far ahead of the Klondike with respect to the cost of production and insure the rapid extraction of its placer deposits. It seems quite probable, therefore, that long before the Klondike miner shall have thawed out the glacial drift which clings with icy grasp to the attenuated extremities of his pay streak the gold from the superficial deposits of Nome will pass through the mints and enter upon the performance of its ordained function as an integral part of the circulating medium of the nation.

ST. MICHAEL, ALASKA, *March 15, 1900.*

LABOR DAY.

BY MISS M. C. DE GRAFFENRIED.

Thirty-six States of the Union and the District of Columbia make Labor Day a legal holiday. This wide observance gives the celebration almost a national character. No other country sets apart by law a similar festival. Its sanction by 36 State legislatures and by Congress for the District of Columbia shows the general agreement as to the great value and importance of the idea for which the holiday stands—recognition of the rights and dignity of labor. This open, legalized recognition is one of the many results of the evolution of the workingman from a condition of bondage and serfdom into a higher civil and industrial grade.

Labor Day could never have existed but for the moral force of universal manhood suffrage under democratic institutions. Advancing civilization and our general industrial progress aided the movement. In each State where the holiday is legalized, bodies of organized workingmen helped to bring about the enactment by influencing public sentiment in their respective localities. Where no date has yet been set apart for this celebration the State governments will doubtless soon fall into line, for no serious opposition to the measure has been displayed even by legislatures which refused to enact other laws in the interests of labor—clear proof that the significance of the fête appeals to the popular heart and mind.

Much preceding legislation in behalf of the workingman led up, it is true, to the consecration of one day in the year as distinctly a holiday for wage-earners. The principle that government has a right to regulate in certain respects the conditions under which men and women toil and to secure them time for rest and recreation had already been established by the adoption in many States of factory laws and factory inspection. The ten-hour working day for women and children had been gained. Employment for young children in the mill and workshop had been restricted, and previous schooling for them required. Machinery had been rendered safer by guards and frequent inspection. Wages were paid oftener and paid in money, not in "truck" or orders on a company store. Legal observance of the Saturday half holiday had begun. Industrial schools had been established. Convict labor had in part been withdrawn from market competition and eliminated

from trade. Bureaus of statistics of labor had been founded to investigate and describe the industrial situation.

In line with advanced labor legislation is the celebration of Labor Day. The trade unions which helped so greatly to secure the beneficial factory codes, through the same influence obtained the September holiday. All the great labor organizations in the United States contributed to this result. Agitation for the holiday began in New York in 1882. In September of that year the order of the Knights of Labor, founded in 1869, convened in general assembly at New York City. An independent organization, the Central Labor Union of New York, contained many bodies affiliated with the Knights, and the union chose for its annual parade September 5, when the Knights would be in session. The general assembly of the Knights ^{was} invited to review the parade of the Central Labor Union from the grand stand at Union Square, and accepted. A recess being taken, the members of the general assembly witnessed the parade. As the various organizations passed, Robert Price, of Lonaconing, Md., said to the general worthy foreman of the Knights of Labor, "This is Labor Day in earnest, Uncle Dick." The event was afterwards referred to as the Labor Day parade. In 1883 the organizations of New York paraded on the first Monday of September. In 1884 when the Central Labor Union discussed the date for its parade, George R. Lloyd, a Knight of Labor, offered a resolution declaring the first Monday in September to be Labor Day. The resolution was adopted, and steps were at once taken to secure an enactment making this a legal holiday, known as Labor Day. Not until May 6, 1887, however, was the law passed in New York.

Meantime, in other States great labor organizations and local unions made common cause with the Central Labor Union and the Knights of Labor in efforts to secure general observance of this day as a legal holiday. Oregon was the first State to enact the law, February 21, 1887. New York was the first State to introduce a bill to that effect and the third to enact the law, New Jersey being the second. Other Commonwealths and the District of Columbia adopted the measure at different dates, as shown by the table below.

Two significant features of this celebration are, first, that differences and animosities among the great labor bodies are laid aside; second, that of late employers are invited to meet with the workers in discussing topics relating to the welfare of the industrial class. In other words, the standpoint of the laboring man is constantly becoming less and less alien to that of the employing class, and the worker on his one day of leisure in the year is glad to share the point of view of men with a broader outlook than himself. Mr. Powderly well remarks: "Those who discuss the questions of the hour before meetings of industrialists on that day should be educators—they should be teachers of the gos-

pel of humanity and its needs. Those who address such meetings are burdened with a weighty responsibility. It is their duty to teach a doctrine of independence of thought and action."

No better social measure of advancing civilization exists than the share taken in public fêtes by the laboring classes. From the circus and arena of the ancients, where slaves and captives were pitted against wild beasts, the next step was in feudal times to the lords' fêtes and celebrations, at which the lowest serf might be a looker on. Later, in the middle ages, the tenant became even a sharer in games and feasts provided by the lord, but strictly set apart for the peasantry and laboring classes. Under the present wage-earning system, the workingman arranges his own games and feasts, independent of master and employer. If progress continues, Labor Day, which is now class legislation, will in time give way to a broader anniversary in celebration of a universal labor fête based on the common achievements, not of one rank of society, but of all mankind. The cycle of change is not complete, nor the social millennium at hand. A truly national labor holiday will embrace the whole commonwealth, since all its members by hand, brain, virtue, influence, and service will contribute on equal terms to the national existence and welfare.

The statement following shows the States in which Labor Day is a legal holiday and gives the dates of approval of the original acts creating Labor Day:

The first Monday in September.

Alabama.....	December 12, 1892.
California (a)	February 23, 1897.
Colorado.....	March 15, 1887.
Connecticut.....	March 20, 1889.
Delaware.....	February 14, 1893.
District of Columbia.....	June 28, 1894.
Florida.....	April 29, 1893.
Georgia.....	October 16, 1891.
Illinois.....	June 17, 1891.
Indiana.....	March 9, 1891.
Iowa.....	April 5, 1890.
Kansas.....	March 4, 1891.
Maine.....	February 10, 1891.
Massachusetts.....	May 11, 1887.
Michigan.....	May 12, 1893.
Minnesota.....	April 18, 1893.
Missouri.....	April 9, 1895.
Montana.....	February 19, 1895.
Nebraska.....	March 29, 1889.
New Hampshire.....	March 31, 1891.
New Jersey.....	April 8, 1887.

a Present law. Under the original law, approved May 23, 1893, the first Monday in October was observed.

The first Monday in September—Concluded.

New York	May 6, 1887.
Ohio	April 28, 1890.
Oregon (a)	February 21, 1893.
Rhode Island	May 28, 1893.
South Carolina	December 22, 1891.
Tennessee	March 11, 1891.
Texas	February 11, 1893.
Utah	February 23, 1892.
Vermont	November 26, 1898.
Virginia	February 5, 1892.
Washington	February 24, 1891.
West Virginia	February 21, 1899.
Wisconsin	April 19, 1893.

The twenty-fifth of November.

Louisiana (Parish of Orleans)	July 7, 1892.
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The first Thursday in September.

North Carolina	March 6, 1899.
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The first Saturday in September.

Pennsylvania (b)	May 31, 1893.
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a Present law. Under the original law, approved February 21, 1887, the first Saturday in June was observed.

b Present law. Under the original law, approved April 25, 1889, the first Monday in September was observed.

HOURS OF LABOR AND OF REST OF RAILWAY EMPLOYEES IN PRUSSIA.

A short report to the Department of State made by Hon. Richard Guenther, United States consul-general at Frankfort-on-the-Main, Germany, shows the substance of the new rules and regulations concerning the hours of labor and of rest of railway employees which were recently promulgated by the minister of public works of Prussia. A copy of the report having been kindly furnished this Department by the Department of State, it is reproduced below:

The minister of public works of Prussia has made new rules and regulations concerning the hours of labor and of rest of railroad employees. If the duties require unremitting exertion and strict attention, the daily average of the hours of labor of station agents, assistant station agents, telegraphers, switching foremen, overseers of stopping places, and switchmen shall not exceed eight hours, and the duration of a single task shall not exceed ten hours. The daily work of railway guards shall not exceed fourteen hours. They can, however, be extended to sixteen hours on branch lines with little traffic.

The daily hours of labor of the train employees shall, on the average per month, not exceed eleven hours daily; a single task shall not be over sixteen hours. Long hours shall only be required if they are succeeded by proportionately long terms of rest. The rest shall be taken at home, and as far as possible shall be during the night. The daily hours of work for the locomotive employees, taken by the average per month, shall not exceed ten hours, and shall under no circumstances exceed eleven consecutive hours. The same provisions as to rest apply to them as to the train employees.

If the work of the switchmen requires uninterrupted hard work, the average per day shall not exceed eight hours.

Every person steadily employed in the train service shall have at least two days of rest per month. The period of rest of the train and locomotive employees at their respective homes shall not be less than ten consecutive hours.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

ILLINOIS.

Tenth Biennial Report of the Bureau of Labor Statistics of the State of Illinois. 1898. David Ross, Secretary Board of Commissioners of Labor. 271 pp.

The present report relates to the following subjects: Private and municipal ownership of public works, 137 pages; public employment agencies, 96 pages; labor legislation, 37 pages.

PRIVATE AND MUNICIPAL OWNERSHIP OF PUBLIC WORKS.—The information presented under this head was obtained by the Illinois bureau by means of schedules prepared by the United States Department of Labor, and covers facts which will be presented for the whole country in the Fourteenth Annual Report of the United States Commissioner of Labor, 1899.

PUBLIC EMPLOYMENT AGENCIES.—This part of the report contains an account of the experiences of various States and foreign countries in regard to public employment agencies, the facts presented having been collated from official reports, statements of officials, and other sources. Copies of laws passed in Ohio, Montana, Nebraska, and New York regarding the establishment of free employment agencies are given, together with an account of their operations in each case. The labor bureaus of California and Missouri have opened free public employment offices without waiting for legislation.

KANSAS.

Fourteenth Annual Report of the Kansas Bureau of Labor and Industrial Statistics. 1898. W. L. A. Johnson, Commissioner. 360 pp.

This report treats of the following subjects: Taxation of probated estates, 43 pages; manufacturing and industrial conditions, 29 pages; lead, zinc, and oil industries, 6 pages; factory inspection, 10 pages; statistics of wage-earners, 70 pages; railway employees, 5 pages; labor organizations, 20 pages; State Society of Labor and Industry, 33 pages; State institutions, 12 pages; sociology, 13 pages; labor legislation, 37 pages; work of labor bureaus in the United States, 39 pages; strikes and labor difficulties, 31 pages.

MANUFACTURING AND INDUSTRIAL CONDITIONS.—Returns for 1898 were made by 100 establishments in the State, but many of these were incomplete. Statistics reported relate to the nature of the industry, character of ownership, number of firm members and stockholders, capital invested, value of products, assessed valuation and estimated true value of plants, amount of production, months in operation during the year, etc.

Of 100 establishments making returns, 58 reported a total capital of \$2,201,574 invested in buildings, grounds, and machinery. During 1898 they expended \$4,113,030 for raw materials, \$563,404 for salaries and wages, and \$95,753.79 for repairs, insurance, taxes, and rent, a total expenditure of \$4,772,187.79. The total value of the manufactured products was \$5,655,169. Of the 58 establishments considered, 25 were owned by corporations, 7 by firms, and 26 by individuals.

LEAD, ZINC, AND OIL.—This part of the report relates to the output and general operations of the lead and zinc plants and oil wells in the State during 1898. Seventy-two lead and zinc plants reported a total output of 165,541,270 pounds of ore, whose total value was \$2,347,029. The value of oil and natural gas produced during 1898 was \$67,841.44.

WAGE-EARNERS.—The usual investigation was made with regard to the condition of wage-earners. Returns were made by 361 wage-earners, covering nativity, hours of labor, wages, cost of living, etc. The following table shows, by occupations, the more important data presented:

STATISTICS OF WAGE-EARNERS, BY OCCUPATIONS, 1898.

Occupations.	Number reporting.	Number married.	Number single.	Heads of families.	Average dependents per head of family.	Average yearly wages.	Average yearly income from all sources.	Average cost of living.	Number reporting savings.	Number owning homes.	Members of labor organizations.
Barbers.....	26	23	3	24	3.0	\$518.46	\$615.23	a\$359.96	17	10	24
Brakemen.....	25	17	8	19	3.0	657.52	662.52	b\$386.00	10	6	24
Butchers.....	16	10	6	10	3.5	473.25	482.62	399.81	5	2	16
Carpenters.....	21	20	1	20	3.6	522.95	566.00	462.52	12	8	10
Cigar makers.....	14	9	5	9	4.1	491.78	491.78	397.42	6	3	12
Conductors.....	18	16	2	16	3.7	1,062.00	1,073.50	844.88	13	10	18
Engineers.....	21	20	1	21	4.0	1,200.00	1,246.24	837.76	14	15	21
Laborers.....	25	15	10	17	4.1	289.20	293.88	277.32	7	5	23
Machinists.....	32	24	8	26	3.2	653.00	684.84	547.22	11	14	13
Other mechanics.	45	32	13	34	3.7	612.20	639.35	497.33	17	13	32
Mechanics' help- ers.....	27	16	11	18	4.4	364.25	382.59	339.92	12	8	2
Railroad laborers.	19	16	3	17	3.8	763.63	814.00	689.42	9	7	13
Miners.....	21	19	2	18	3.9	407.66	464.52	408.57	7	8	19
Salt workers.....	32	23	9	26	3.7	285.62	294.37	280.46	4	3	32
Section foremen..	9	8	1	9	5.2	535.66	631.88	504.44	5	4	8
Railroad track- men.....	10	9	1	10	4.0	278.50	282.00	289.40	2	4	5
All occupa- tions.....	361	277	84	294	3.8	567.11	597.91	c474.72	151	120	272

a Average for 25, one not reporting.

b Average for 24, one not reporting.

c Average for 359, two not reporting.

Of the 361 wage-earners reporting, 277 were married and 84 were single; 294 were heads of families, having an average of 3.8 dependents per head of family. The average yearly earnings of the 361 wage-earners were \$567.11, and the total income from all sources amounted to \$597.91 per wage-earner. The average cost of living was \$474.72. Of the wage-earners making returns, 151 reported savings during the year; 120 owned their homes; 272 were members of labor organizations, and 315 were American born.

RAILWAY EMPLOYEES.—Tables are given showing the salaries and wages of employees of 7 railway companies doing business in the State.

LABOR ORGANIZATIONS.—The following table shows the number and membership of labor organizations reporting on December 31, 1898:

NUMBER AND MEMBERSHIP OF LABOR ORGANIZATIONS, DECEMBER 31, 1898.

Labor organizations.	Local unions or branches.	Members.
Amalgamated Meat Cutters and Butcher Workmen of North America.....	2	81
Amalgamated Sheet Metal Workers' International Association	1	14
Brotherhood of Locomotive Engineers	10	384
Brotherhood of Railway Trackmen of America	5	88
Brotherhood of Railroad Trainmen	3	a 57
Cigar Makers' International Union	4	87
Coopers' International Union of North America	1	106
Federal Labor Union	1	400
International Typographical Union	1	16
International Association of Machinists	1	25
International Brotherhood of Blacksmiths	1	35
Journeyman Barbers' International Union of America	2	61
Kansas State Barbers' Association	2	45
Knights of Labor	1	25
Order of Railway Conductors	8	390
Retail Clerks' National Protective Association	1	46
Total	44	a 1,810

a Not including 1 union not reporting.

Returns were received from 44 local unions, 43 of which reported a total membership of 1,810 persons. Of the 44 local unions, 39 reported an average of 64 per cent of the trade in their localities as being organized. Thirty-three local unions reported wages of members ranging from \$195 per year, in the case of one butchers' union, to \$1,440 per year in the case of a union of locomotive engineers, or an average of \$822.39 for all unions. Eleven unions reported that they handled a total of 71 grievances during 1898, of which 62 were satisfactorily settled, 4 were compromised, and 5 failed of settlement. The average age of 36 unions reporting was 8.3 years. Of 41 unions reporting, 28 had schedules or contracts with employers, and 13 had none. Of 39 unions reporting, 15 had sick, out-of-work, or accident funds, and 24 had none. Of 40 unions reporting, 34 had death benefit funds, and 6 had none. Of 43 unions, 30 reported that members were required to perform Sunday labor. Of 41 unions, 35 reported an increasing and 6 a decreasing tendency in membership and efficiency in organization.

STATE SOCIETY OF LABOR AND INDUSTRY.—A review is given of the origin, history, and operation of the State Society of Labor and Industry and its control of the State bureau of labor and industrial statistics according to the provisions of the act approved January 6, 1899.(a) A report of the proceedings of the first meeting of this society is also given.

SOCIOLOGY.—This chapter consists of a number of articles written by persons interested in labor questions.

STRIKES.—An account is given of each of four strikes which occurred in the State during the first half of the year 1899.

MICHIGAN.

Sixteenth Annual Report of the Bureau of Labor and Industrial Statistics. 1899. Joseph L. Cox, Commissioner. viii, 360 pp.

The present report, like that for the preceding year, deals with a variety of subjects. Of those relating to labor and industrial conditions the following are the most important: Profit sharing, 12 pages; trade unions, 13 pages; State labor canvass, 28 pages; the soft-coal industry, 15 pages; negroes of Michigan, 8 pages. Other chapters of the report relate to an historical review of the bureau; copies of the acts creating the bureau of labor and regulating factory inspection; reports of the meetings of the National Association of Officials of Bureaus of Labor Statistics and of the International Association of Factory Inspectors; statistics of the police and fire departments, county, city, and village prisons, and State penal institutions; statistics of cities and villages; a description of each of the counties, including statistics of mortgages, interest rates, etc., and statistics of factory inspection.

TRADE UNIONS.—A brief summary is given of each trade union in the State from which returns were received, showing the name, locality, and membership, the wage scales, and other information. Returns from 111 unions showed a total membership of 10,308 persons in 1898. Forty-eight unions reported an increased membership during the year; 95 unions reported steady employment on the part of their members, and 13 reported increased wages. The average wages received by members during the year were \$2.14 per day for time work and \$2.21 per day for piecework.

STATE LABOR CANVASS.—A canvass was made of 6,878 males and 3,294 females, employed in various parts of the State, regarding their age, nationality, conjugal condition, occupation, wages, length of service, etc. The two following tables show for male and female employees, respectively, for selected occupations, the average daily

a For a copy of this act see Bulletin No. 22, pages 496-498.

wages, average number of months employed during the year 1898, and the average number of years engaged in the present occupation:

DAILY WAGES OF MALE EMPLOYEES AND MONTHS EMPLOYED DURING 1898, BY SELECTED OCCUPATIONS.

Occupations.	Num-ber.	Average daily wages.	Average months employed during the year.	Average years at present occupation.	Occupations.	Num-ber.	Average daily wages.	Average months employed during the year.	Average years at present occupation.
Barbers	16	\$1.46	12.0	10.6	Metal polishers..	45	\$1.61	9.9	5.8
Bicycle works em- ployees	15	1.44	9.7	6.0	Millers	28	1.93	12.0	16.7
Blacksmiths	248	1.92	11.3	10.9	Molders	95	1.97	10.1	10.9
Blacksmiths' helpers	102	1.40	2.2	7.4	Painters	309	1.56	10.1	7.8
Boiler makers	47	2.25	9.5	10.8	Paper mill em- ployees	23	1.29	10.6	4.9
Brass workers	76	1.67	9.9	5.6	Pattern makers ..	20	2.34	10.5	13.6
Brewery em- ployees	28	1.76	12.0	9.5	Plumbers	20	2.17	10.9	11.6
Butchers and meat cutters	29	1.57	11.6	8.5	Printers	71	1.98	10.7	11.7
Car repairers	24	1.45	11.0	9.7	Stenographers...	7	1.63	11.7	5.9
Carriage and wagon makers	408	1.59	10.4	11.1	Stone and brick masons	28	2.43	7.3	19.3
Cigar makers	126	2.07	9.2	12.0	Stone and mar- ble cutters	27	1.96	8.5	18.2
Electricians	28	1.80	11.2	6.2	Street car em- ployees	57	1.55	12.0	4.3
Engineers	111	1.96	11.4	16.5	Tailors	32	2.41	10.3	14.3
Firemen	38	1.34	11.5	6.2	Tannery em- ployees	14	1.41	11.5	6.6
Iron workers	229	1.56	9.8	8.5	Teamsters	186	1.38	11.6	8.1
Laborers	1,278	1.20	9.7	14.1	Tinners	49	1.88	10.7	14.5
Laundry em- ployees	9	1.60	12.0	6.3	Wood workers...	492	1.42	9.9	11.6
Machinists	217	2.06	10.9	15.0	Woolen mill em- ployees	18	1.83	10.2	17.2

DAILY WAGES OF FEMALE EMPLOYEES AND MONTHS EMPLOYED DURING 1898, BY SELECTED OCCUPATIONS.

Occupations.	Num-ber.	Average daily wages.	Average months employed during the year.	Average years at present occupation.	Occupations.	Num-ber.	Average daily wages.	Average months employed during the year.	Average years at present occupation.
Bakery employees	31	\$0.66	12.0	2.0	Milliners	134	\$1.24	9.1	8.7
Bean sorters	103	.47½	7.8	3.3	Paper-box mak- ers	58	.59	11.7	1.7
Bookbinding em- ployees	22	.62	10.7	2.4	Paper mill em- ployees	62	.68	10.9	2.1
Card factory em- ployees	55	.70	10.7	2.8	Printing office employees	38	.77	11.5	4.5
Cash girls	15	.31	(a)	.5	Saleswomen	348	.80	11.4	4.3
Cigar factory em- ployees	76	.62	11.0	2.1	Seamstresses ..	12	.80	8.9	5.2
Corset factory em- ployees	140	.85½	10.9	4.0	Silk mill em- ployees	82	.74	9.1	3.2
Domestics	77	.46	11.0	6.0	Shirt makers	42	.93	10.3	3.6
Dressmakers	101	.91½	10.6	9.2	Stenographers...	218	1.26	10.0	8.0
Dress-stay makers.	43	.91	12.0	5.3	Straw workers...	12	1.14	8.2	3.7
Hat factory em- ployees	20	1.17	7.4	4.0	Tailoresses	86	1.01	9.4	6.4
Knitting factory employees	126	.74	11.0	2.8	Telephone oper- ators	50	.67½	11.3	2.9
Laundry employ- ees	139	.91	11.1	4.4	Woolen factory employees	35	.81	11.3	3.3

a Full time.

The returns for all of the 6,878 male employees canvassed showed the following average results: Daily wages, \$1.53; months employed during the year, 10.2; years engaged at present occupation, 10.8; age, 32 years. Ninety-seven per cent had employment at the time of the canvass; 56 per cent were married, 42½ per cent were single, and 1½ per cent were widowed. The 6,878 male employees had 17,948 dependents, or 2.6 per person canvassed. Twenty-seven per cent owned their homes.

Returns for 3,294 female employees canvassed showed the following average results: Daily wages, \$0.84; months employed during the year, 10.4; years engaged at present occupation, 3.8; age, 24 years. Ten per cent were married, 6 per cent were widowed, and 84 per cent were single. The 3,294 female employees had 4,249 dependents, or 1.3 per person canvassed. Four per cent owned their homes.

SOFT-COAL INDUSTRY.—This chapter consists of extracts from a report on the soft-coal industry of Michigan, and contains a brief account of the location of the coal fields and of the operations of the various coal-mining enterprises in the State.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

GREAT BRITAIN.

Report on the Strikes and Lockouts of 1898 in the United Kingdom.
1899. xcv, 119 pp. (Published by the Labor Department of the British Board of Trade.)

The present report of the chief labor correspondent of the Labor Department of the British Board of Trade is the eleventh issued since the commencement of the series in 1888. The greater part of the volume is devoted to a detailed statement showing for each dispute, beginning in 1898, the locality, the number of establishments, the number and occupations of working people affected, the cause or object of the dispute, the date of beginning and ending, and the result. These tables are preceded by an analysis of the statistics of strikes and lockouts, comparative data for recent years, and summary tables. The general plan of this presentation is very nearly the same as in the preceding years, except that in the analysis and the summary tables a distinction is made between persons directly and those indirectly affected by the strikes and lockouts. A special section of the report is devoted to conciliation and arbitration, and appendixes contain the text of certain agreements terminating trade disputes, and also specimen forms of inquiry.

The report for 1898 shows an increase in the number of persons affected and working days lost on account of strikes and lockouts, as compared with 1896 and 1897, although the number of disputes in 1898 was smaller than during any of the 4 preceding years. This is shown in the following table:

STATISTICS OF STRIKES AND LOCKOUTS, 1894 TO 1898.

Year.	Strikes and lockouts.	Persons affected.			Aggregate working days lost by all persons affected. (a)
		Strikers and persons locked out.	Others thrown out of employment.	Total.	
1894.....	929	257,314	67,934	325,248	9,529,010
1895.....	745	207,239	55,884	263,123	5,724,670
1896.....	926	147,950	50,240	198,190	3,746,368
1897.....	864	167,453	62,814	230,267	10,345,523
1898.....	711	200,769	63,138	263,907	15,289,479

a For strikes and lockouts ending in each year shown, including those that may have begun in the preceding.

There were 711 disputes in 1898, affecting 253,907 persons, of whom 200,769 were actual participants as strikers or persons locked out and 53,138 were otherwise thrown out of employment on account of the disputes.

The following table shows, by causes, the number of persons directly affected by disputes beginning in 1896, 1897, and 1898:

STRIKERS AND PERSONS LOCKED OUT, BY CAUSES, 1896 TO 1898.

Cause or object.	Strikers and persons locked out in disputes beginning in—					
	1896.		1897.		1898.	
	Num- ber.	Per cent.	Num- ber.	Per cent.	Num- ber.	Per cent.
Wages	96,975	64.9	73,906	44.1	176,392	87.9
Hours of labor	2,355	1.6	89,227	23.4	777	.4
Employment of particular classes of persons	22,745	15.4	14,840	8.9	9,203	4.6
Working arrangements, rules, and discipline	17,533	11.8	29,068	17.4	11,742	5.8
Trade unionism	5,279	3.6	6,327	3.8	2,215	1.1
Other causes	4,063	2.7	4,085	2.4	440	.2
Total	147,950	100.0	167,453	100.0	200,769	100.0

While the most prevalent causes of strikes and lockouts in each of the years mentioned were those relating to wages, the number of persons engaged in disputes due to these causes was much greater in 1898 than in either of the two preceding years. Out of a total of 200,769 persons directly engaged in disputes from all causes, 176,392, or 87.9 per cent, were involved in wage disputes, as compared with 44.1 per cent in 1897 and 64.9 per cent in 1896. These wage disputes were very largely due to demands for advances. Only 777 working people, or 0.4 per cent of the entire number, were engaged in disputes in 1898 on account of hours of labor.

The following table shows the number of working people directly engaged in strikes and lockouts in 1898, classified according to the principal cause and the results obtained:

STRIKERS AND PERSONS LOCKED OUT, BY CAUSES AND RESULTS, AND WORKING DAYS LOST, 1898.

Cause or object.	Strikes and lockouts.	Strikers and persons locked out in disputes, the results of which were—				Total strikers and persons locked out.	Aggregate working days lost by all persons affected. (a)
		In favor of employees.	In favor of employers.	Compromised.	Indefinite or unsettled.		
Wages	449	40,823	109,674	25,791	104	176,392	13,464,493
Hours of labor	19	289	358	130	.....	777	1,139,786
Employment of particular classes of persons	87	1,443	5,359	2,401	.....	9,203	220,755
Working arrangements, rules, and discipline	94	1,889	3,988	5,865	.....	11,742	406,995
Trade unionism	51	798	1,134	276	7	2,215	33,094
Sympathetic disputes	8	248	69	38	.....	345	17,368
Miscellaneous	3	.....	95	.....	.....	95	7,037
Total	711	45,490	120,667	34,501	111	200,769	15,289,478

a For strikes and lockouts ending in 1898, including those that may have begun in 1897.

The above table shows that in 1898 the balance of advantage of the results of the disputes was largely on the side of the employers, 120,667, or 60.10 per cent, of the working people having engaged in disputes settled entirely in favor of the employers, and only 45,490, or 22.66 per cent, in disputes settled wholly in favor of the employees. In the cases of 34,501, or 17.18 per cent, of the strikers and persons locked out, the disputes were compromised. In the remaining cases the results of the disputes were indefinite or unsettled at the close of the year.

The statistics of the 711 disputes in 1898 were largely dominated by a single strike in the coal mining industry, which involved 100,000 strikers and caused a loss of more than 11,500,000 working days. This strike, which was due to a wage dispute, resulted in favor of the employers. The extent to which each of the various groups of industries were involved in the strikes and lockouts in 1898 is shown in the following table:

STRIKERS AND PERSONS LOCKED OUT, BY INDUSTRIES AND RESULTS, AND WORKING DAYS LOST, 1898.

Industries.	Strikes and lockouts.	Strikers and persons locked out in disputes, the results of which were—				Total strikers and persons locked out.	Aggregate working days lost by all persons affected. (a)
		In favor of employees.	In favor of employers.	Compromised.	Indefinite or unsettled.		
Building	183	5,869	1,363	6,993	7	14,232	379,170
Mining and quarrying	129	30,034	104,981	12,278	104	147,397	12,876,334
Metal, engineering, and shipbuilding	152	4,689	5,032	5,384	.....	15,105	1,370,764
Textile	99	2,883	5,549	3,274	.....	11,706	273,564
Clothing	53	599	874	1,418	.....	2,991	69,900
Transportation	22	230	1,475	1,639	.....	3,344	46,771
Miscellaneous	67	1,075	1,090	3,445	.....	5,610	267,716
Employees of local authorities	6	111	303	70	.....	484	5,260
Total	711	45,490	120,667	34,501	111	200,769	15,289,478

a For strikes and lockouts ending in 1898, including those that may have begun in 1897.

The group of mining and quarrying in the above table shows the largest number of persons directly engaged in strikes and lockouts, namely, 147,397, or 73.4 per cent of all, causing a total loss of 12,876,334 working days. Next in importance, with regard to the number of persons engaged and time lost, were the groups of metal, engineering and shipbuilding, the building trades, and the textiles, respectively.

As in previous years, the strikers and persons locked out were mostly engaged in a few large disputes. In the following table the strikes and lockouts beginning in 1898 are grouped according to the total number of persons directly and indirectly affected:

PERSONS AFFECTED BY STRIKES AND LOCKOUTS, AND WORKING DAYS LOST, BY GROUPS, 1898.

[Persons affected means all persons thrown out of work.]

Groups.	Strikes and lockouts.	Persons affected.		Working days lost.	
		Number.	Per cent.	Number.	Per cent.
5,000 persons and upward	3	130,100	51.2	11,716,300	83.1
2,500 and under 5,000	26	34,389	13.6	683,308	4.9
1,000 and under 2,500	42	30,533	12.0	644,464	4.6
500 and under 1,000	76	25,957	10.2	470,354	3.3
250 and under 500	103	15,706	6.2	244,598	1.7
100 and under 250	129	9,056	3.6	192,732	1.4
50 and under 100	154	5,437	2.1	96,012	.7
25 and under 50	178	2,729	1.1	48,586	.8
Under 25 (a)					
Total	711	253,907	100.0	14,096,349	100.0

a Disputes involving less than 10 persons, and those which lasted less than 1 day, have been omitted, except when the aggregate duration exceeded 100 working days.

b These figures differ somewhat from those given in the preceding tables as the aggregate days lost during 1898, since they exclude the days lost in 1898 through disputes in progress at the beginning of the year and include those lost in 1899 through disputes which began in 1898.

According to the above table, three large disputes accounted for over one-half of all persons affected by strikes and lockouts in 1898. On the other hand, 461 strikes and lockouts, or considerably over one-half of the entire number, involved less than 100 persons each, or but 6.8 per cent of all persons directly or indirectly affected by strikes and lockouts.

In the following table the disputes beginning in 1896, 1897, and 1898 are classified according to the various methods of settlement:

PERSONS AFFECTED BY STRIKES AND LOCKOUTS BEGINNING IN 1896, 1897, AND 1898, BY METHOD OF SETTLEMENT.

[Persons affected means all persons thrown out of work.]

Method of settlement.	1896.		1897.		1898.	
	Strikes and lockouts.	Persons affected.	Strikes and lockouts.	Persons affected.	Strikes and lockouts.	Persons affected.
Arbitration	19	10,276	14	9,756	14	3,390
Conciliation and mediation	26	9,985	27	9,544	29	16,127
Direct negotiation or arrangement between the parties	637	136,844	624	187,048	495	206,926
Submission of working people	114	30,587	76	15,207	71	17,590
Replacement of working people	107	7,250	105	4,307	96	9,616
Closing of works	19	3,159	7	1,673	.....	.....
Indefinite or unsettled	4	139	11	2,732	6	258
Total	926	198,190	864	230,267	711	253,907

The method most generally adopted for settling disputes in 1898, as in previous years, has been by direct negotiation of the parties concerned or their agents, 495 disputes, affecting 206,926 persons, being settled in this way. Forty-three disputes, affecting 19,517 persons, were settled by arbitration, conciliation, and mediation, and 167 disputes, involving 27,206 persons, resulted in the submission of the working people or their replacement by others. In the 6 remaining strikes, involving 258 persons, the methods of settlement were indefinite or the strikes remained unsettled at the close of the year.

Of the 43 strikes and lockouts which were settled by arbitration and conciliation, 7 disputes, affecting 3,611 persons, were settled according to the provisions of the conciliation act of 1896; 19 disputes, affecting 12,729 persons, by trade boards; 16 disputes, affecting 3,149 persons, by individuals, and 1 dispute, affecting 28 persons, by a federation of trade unions.

Provision for Old Age by Government Action in Certain European Countries. 1899. 59 pp. (Published by the Labor Department of the British Board of Trade.)

This publication consists of a series of memoranda describing the provisions made for old age by government action in certain European countries. The information was compiled from various reports and documents, supplemented by data obtained from the British Government's foreign representatives.

Of 11 countries considered in this report only 2, Germany and Denmark, have adopted a general system of pensions or relief for old age. In Germany there is a general system of compulsory insurance against old age and invalidity. In 1897 over 400,000 pensioners drew pensions amounting to £2,750,531 (\$13,385,459), of which £1,079,823 (\$5,254,959) were provided by the State.

In Denmark provision is made for old age relief to needy persons of good character, the expense of which is borne partly by the State and partly by the communes. In 1896, 36,246 persons with 14,223 dependents received such pensions at a total cost of £216,317 (\$1,052,707) during that year.

In France provision for old age is obligatory in the case of seamen and miners. The Government contributes £440,000 (\$2,141,260) per annum to the seamen's pension fund, subsidizes pension funds of friendly societies, and makes other grants, amounting to an aggregate of probably not less than £600,000 (\$2,919,900) per year.

In Belgium the Government and certain provincial authorities make grants to friendly societies to encourage subscriptions to the general savings and retirement fund (*Caisse Générale d'Épargne et de Retraite*), and in some districts mine owners are compelled to subscribe to retirement funds for former mine employees.

In Austria provision is made for the compulsory old-age insurance of mine employees, and in Russia old-age insurance extends only to Government mining establishments. In Roumania provision is made for compulsory insurance in mines and quarries, but no enterprises to which the law applies have yet been started. No legislation has been enacted in Sweden, Norway, or Holland for the establishment or encouragement of old-age pension funds. In Italy a law was passed in 1898 establishing a national pension fund, but it had not become operative at the time of the publication of this report.

ONTARIO.

Seventeenth Annual Report of the Bureau of Industries for the Province of Ontario, 1898. vii, 128 pp. (Published by the Ontario Department of Agriculture.)

This report comprises the following subjects: Weather and crops, 66 pages; live stock, the dairy, and the apiary, 20 pages; values, rents, and farm wages, 38 pages; chattel mortgages, 3 pages; municipal statistics, 144 pages.

VALUES, RENTS, AND FARM WAGES.—The total value of farm property reported in 1898 was \$923,022,420, of which \$556,246,569 represents land, \$210,054,396 buildings, \$52,977,232 implements, and \$103,744,223 live stock. For the first time since 1892 an increase is shown in the total value of farm property, there having been a steady decline from 1892 to 1897.

There was likewise a change for the better in the price of farm labor. Farm hands with board received in 1898 an average of \$148 per year, an increase of \$4 over 1897. Farm hands without board received an average of \$246 in 1898, or \$10 more than the preceding year. The average monthly rate of wages during the working season was \$15.31, with board, in 1898, or \$1.02 more than in 1897. The average monthly rate without board was \$25.44 in 1898, or 97 cents more than in 1897. The monthly wages with board received by domestic servants increased from \$5.97 in 1897 to \$6.09 in 1898.

CHATTEL MORTGAGES.—During the year ending December 31, 1898, there were on record 19,809 chattel mortgages, representing \$12,282,217. This shows a decrease, both in number and in amount, when compared with the preceding year. Of the chattel mortgages in 1898, 10,631, representing \$3,580,497, were registered against farmers.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, has been continued in successive issues. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks and when long by being printed solid. In order to save space, immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

CONSTITUTIONALITY OF STATUTE CHANGING FELLOW-SERVANT RULE IN CASE OF RAILROAD EMPLOYEES—*Tullis v. Lake Erie and Western Railroad Co.*, 20 *Supreme Court Reporter*, page 136.—Action was brought by Hosea B. Tullis against the above-named railroad company to recover damages for an injury suffered while in the employ of said company. In an inferior United States court a judgment was rendered in favor of the defendant company and the plaintiff, Tullis, appealed the case to the United States circuit court of appeals for the seventh circuit. The case turned upon the validity of an act approved March 4, 1893, and now included in sections 7083 to 7087 of Burns' Annotated Statutes of Indiana, Revision of 1894, which changed the common-law rule as to fellow-servants as regards railroad companies and rendered them liable for injuries of employees caused by the negligence of fellow-servants in certain specified cases. After a hearing the court of appeals decided that material error was committed at the hearing in the lower court for which its judgment should be reversed if the sections, above referred to, were constitutional and valid, but that if said sections were invalid the judgment should be affirmed. Upon the question as to the constitutionality of these sections the court of appeals certified the case to the Supreme Court of the United States, which rendered its decision December 11, 1899, and affirmed their constitutionality.

The opinion of the court was delivered by Chief Justice Fuller, and the following is quoted therefrom:

The contention is that the act referred to is in conflict with the Fourteenth Amendment [to the Constitution of the United States] because it denies the equal protection of the laws to the corporations to which it is applicable.

In *Pittsburg, C., C. & St. L. R. Co. v. Montgomery*, 152 Ind. 1, 49 N. E., 582, the statute in question was held valid as to railroad companies, and it was also held that objection to its validity could not be made by such companies, on the ground that it embraced all corpo-

rations except municipal, and that there were some corporations whose business would not bring them within the reason of the classification. In announcing the latter conclusion the court ruled in effect that the act was capable of severance; that its relation to railroad corporations was not essentially and inseparably connected in substance with its relation to other corporations; and that, therefore, whether it was constitutional or not as to other corporations, it might be sustained as to railroad corporations.

Considering this statute as applying to railroad corporations only, we think it can not be regarded as in conflict with the Fourteenth Amendment.

The court at this point referred to several decisions declaring similar statutes of several States to be valid and then continued in part as follows:

By reason of the particular phraseology of the act under consideration it is earnestly contended that the decisions sustaining the validity of the statutes of Kansas, Iowa, and Ohio are not in point, and that this statute of Indiana classified railroad companies arbitrarily by name and not with regard to the nature of the business in which they were engaged, but the supreme court of the State in the case cited has held otherwise as to the proper interpretation of the act, and has treated it as practically the same as the statutes of the States referred to.

As remarked in *Missouri, K. & T. R. Co. v. McCann*, 174 U. S., 580, 586, 43 L. ed., 1093, 1096, 19 Sup. Ct. Rep., 755, the contention calls on this court to disregard the interpretation given to a State statute by the court of last resort of the State, and, by an adverse construction, to decide that the State law is repugnant to the Constitution of the United States. "But the elementary rule is that this court accepts the interpretation of a statute of a State affixed to it by the court of last resort thereof."

This being an action brought by Tullis to recover damages for an injury suffered while in the employment of the railroad company, caused by the negligent act of a fellow-servant, for which the company was alleged to be responsible by force of the act, we answer the question propounded that the statute as construed and applied by the supreme court of Indiana is not invalid and does not violate the Fourteenth Amendment to the Constitution of the United States.

CONSTITUTIONALITY OF STATUTE—DEATH OF MINE EMPLOYEE—WHO MAY MAINTAIN ACTION FOR DAMAGES—*Maule Coal Co. v. Partenheimer*, 55 *Northeastern Reporter*, page 751.—Action was brought by John Partenheimer as administrator of the estate of Robert Poneleit, deceased, to recover damages for the death of his decedent, caused by the alleged negligence of the above-named coal company, which was made the defendant in the suit. At the time of his death, Poneleit was in the employ of the coal company in the capacity of a blacksmith about its mine. He was killed by an explosion of gas in the mine. In the circuit court of Gibson County, Ind., a judgment was rendered in favor of the plaintiff and the defendant appealed the

case to the supreme court of the State. The defendant claimed that the case came within and was governed by the provisions of an act of the legislature pertaining to coal mines, approved March 2, 1891 (Acts 1891, p. 57, Burns' Rev. St., 1894, § 7461 et seq.), and that the right of action which the plaintiff sought to enforce was lodged by the legislature in the particular persons designated in section 13 of said act (§ 7473, Burns' Rev. St., 1894) and not in the administrator of the estate of the deceased, by whom the action had been brought. The section referred to reads as follows:

For any injury to person or persons or property occasioned by any violation of this act, or any willful failure to comply with any of its provisions, a right of action against the owner, operator, agent or lessee shall accrue to the party injured for the direct injury sustained thereby, and in case of loss of life by reason of such violation, a right of action shall accrue to widow, children, or adopted children, or to the parents or parent, or to any other person or persons who were before such loss of life dependent for support on the person or persons so killed, for like recovery for damages for the injury sustained by reason of such loss of life or lives.

The plaintiff, in reply, insisted that said section could not be considered as controlling in the case for the reason that when the law of which it forms a part is tested by section 19, art. 4, of the State constitution, it must be held invalid. Said section of the constitution provides in part that "Every act shall embrace but one subject and matters properly connected therewith; which subject shall be expressed in the title." The plaintiff claimed that this constitutional provision was violated by the statute in question in two respects: First, that it embraced more than one principal subject; second, that there was no general subject expressed in the title of the act. It was further claimed by the plaintiff that if said statute was invalid that the action was rightfully brought by the administrator under the provisions of section 285 of Burns' Rev. St., 1894, which empowers the personal representative to maintain an action for damages where the death of his decedent has been caused by the wrongful act of another. The supreme court rendered its decision December 13, 1899, and sustained the claim of the defendant company, holding that the statute relating to coal mining was constitutional and valid and that in consequence the action should have been brought by the widow or children of the deceased and not by his administrator, and the judgment of the circuit court was reversed.

The opinion of the supreme court was delivered by Judge Jordan, and from the same the following is quoted:

The title of the act in dispute is as follows: "An act regulating the weighing of coal, providing for the safety of employees, protecting persons and property injured, providing for the proper ventilation of mines, prohibiting boys and females from working in mines, conflicting acts repealed, and providing penalties for violation." The statute is divided into some 24 sections, some of which * * * regulate

the weighing of coal delivered from any coal mine in this State operated by any owner, agent, or lessee of such mine, while others pertain to the manner in which the mine shall be supported in order to protect persons working therein, and others provide for the proper ventilation of the mine so as to keep it at all times free from "standing gas," and also provide for or designate means by which the proper ventilation of a coal mine may be secured, and further provide that a competent mining boss shall be employed, who shall keep a careful watch over the ventilating apparatuses and air-ways of the mine, etc. An inspection of the statute clearly discloses that the general subject covered by the legislation therein is one concerning or relating to coal mines, and that the part thereof which vests the right of action for a recovery of damages arising out of the death of a person caused by the violation of any of its provisions, or willful failure to comply therewith, upon the part of the owner, operator, agent, or lessee, in the widow or children of the deceased, or other persons, in the order named in the section in question, is incidental or auxiliary to the principal subject upon which the legislation is had, and consequently is a matter properly connected therewith. We conclude, therefore, that the title is sufficient, and that the act does not embrace a plurality of subjects, and is not open to the constitutional objections urged by counsel for appellee.

In view of the plain purpose of the statute, and in obedience to the rule well affirmed by the authorities, we can see no escape from holding that this action, under the facts, falls within the terms of the act in controversy, and that the surviving widow of the deceased, and not his administrator, is the proper person to sue for damages resulting from his death; and we are constrained to conclude that appellee [the administrator] can have no standing in court to maintain this action.

CONSTITUTIONALITY OF STATUTE—TRUCK SYSTEM, ETC.—*Luman, clerk, v. Hitchens Bros. Co.*, 44 *Atlantic Reporter*, page 1051.—This case was heard by the court of appeals of Maryland on an appeal from the circuit court of Allegany County, of that State. It was a hearing upon a petition by the above-named company against one Theodore Luman for a writ of mandamus. The decision of the court of appeals was rendered November 23, 1899.

The facts of the case, so far as given, appear in the following, quoted from the opinion of the court, which was delivered by Chief Justice McSherry:

The proceedings in this case are designed to test the constitutionality of chapter 493 of the acts of the general assembly of this State, passed at the January session of 1898. The title of the statute is in these words: "An act to prohibit railroad and mining corporations, their officers and agents, from selling or bartering goods, wares or merchandise in Allegany County to their employees."

The appellee is a trading corporation. One of its stockholders is a director in the Barton and George's Creek Coal Company, a mining corporation of Allegany County. By the general laws of the State, before a person or a corporation can lawfully conduct a merchandising

business in any county, a trader's license must be procured from the clerk of the circuit court. In the latter part of April, 1899, application was made by the appellee to the appellant, who is the clerk of the circuit court for Allegany County, for a trader's license. The clerk refused to issue the license unless the oath [to the effect that no officer of any railroad or mining corporation has any interest in the store or business or in the profits thereof, proposed to be carried on under the license] prescribed by the second section of the act now under review was first taken by some officer of the appellee corporation, but the treasurer of the appellee refused to make the oath, because one of the stockholders of the Hitchens Bros. Company was a director in a mining corporation. Thereupon the clerk declined to issue the license applied for by the appellee, and the latter filed in the circuit court a petition praying that a mandamus might go out directing the clerk to issue the license. Ultimately a pro forma order was passed requiring the clerk to deliver the license, and from that order this appeal has been taken.

The validity of the statute has been assailed upon a number of grounds, some of which will now be considered. The title declares that the act is an act to prohibit railroad and mining corporations, their officers and agents, from selling goods, wares, and merchandise to their employees; whereas the body of the act makes it unlawful not only for a railroad and mining corporation to sell or barter any goods, wares, or merchandise, but for any president, vice president, manager, superintendent, director, or other officer of such corporations to own or have any interest whatever in any store or merchandise business in Allegany County, without the slightest reference to whether sales are made to the employees of railroad or mining corporations or not. There are two things prohibited in the body of the act under a title indicating a purpose to prohibit but one thing, and that one thing is a wholly different thing from the two which are prohibited. The title relates to sales to employees; the body of the act prohibits railroad and mining corporations from selling at all; and it also, without qualification, prohibits the designated officers from having any interest in any store, and from selling to any person any goods, wares, or merchandise in the county. The title indicates that the act is designed to provide a restricted prohibition, while the body of the act declares an unrestricted prohibition. A provision forbidding a sale to employees is widely different from, because much narrower than, a provision forbidding a sale to any one. Though the title need not contain an abstract of the bill, nor give in detail the provisions of the act, it must not be misleading by apparently limiting the enactment to a much narrower scope than the body of the act is made to compass; nor must there be cloaked in the enactment any foreign, discordant, or irrelevant matter not disclosed in the title. The act goes far beyond the purpose declared in its title, and in this respect disregards the provisions of section 29, art. 3, of the constitution of Maryland, which declares "that every law enacted by the general assembly shall embrace but one subject, and that shall be described in its title."

But we need not pursue this discussion further, because there is another objection equally apparent and equally fatal to the act, and that objection is founded on the Fourteenth Amendment to the Constitution of the United States. Section 1 of the amendment guaranties the

equal protection of the laws to all persons alike. It applies to corporations as well as to individuals. A statute which denies to one person the protection that is accorded to others under the same conditions, and in the like situation, or which imposes on one a burden not similarly borne by others, is, because it so discriminates, in both instances invalid under the paramount organic law. Though it was perfectly competent to the legislature to prevent railroad and mining corporations from engaging in the business of bartering or selling goods, wares, and merchandise, either by not conferring such a power upon them in their charters, or, if it had been conferred, then by subsequently amending the charters, and imposing the restriction by such an amendment, yet it was obviously not within the power of the general assembly to deny to particular individuals who happened to be officers of those corporations, and merely because they were such officers, the right which every other citizen of the county, whether an officer of other corporations or not, possessed to sell goods, wares, and merchandise within the county. While the legislature may, under conditions, create classes, and subject all persons coming within the classifications to burdens or duties not imposed upon individuals outside of the classes, these classifications must not be arbitrary or unreasonable, but must rest upon some difference which bears a reasonable and just relation to the act in respect to which the classification is proposed. It may not single out the directors of one corporation, and, solely because they are such directors, prohibit them from engaging in some other business open to the directors of all other corporations, any more than it can by a general enactment, not passed in the exercise of the police power, burden one corporation with a liability from which other corporations of the same kind, under precisely similar circumstances, are relieved.

The reasons we have given are quite sufficient, without assigning any others, to show that the legislation embodied in the act of 1898, which is now before us, is absolutely void.

EMPLOYERS' LIABILITY—DUTIES OF THE MASTER—CONSTRUCTION OF STATUTE—*Mosgrove v. Zimbleman Coal Co.*, 81 *Northwestern Reporter*, page 227.—Action was brought against the above-named coal company by one Mosgrove to recover damages for breathing bad air in its coal mine. After a hearing in the district court of Boone County, Iowa, a judgment was rendered for the plaintiff and the defendant appealed the case to the supreme court of the State, which rendered its decision December 16, 1899, and affirmed the judgment of the lower court.

The facts in the case are sufficiently given in the following, which is quoted from the opinion of the supreme court as delivered by Judge Ladd:

The plaintiff, an experienced miner, entered the coal mine of the defendant December 3, 1897. After passing to his room, he had removed a few shovels of mining dirt, and, when reaching to draw out some loose dirt with his hand, gas struck him. He thus described the occurrence: "It just seemed to draw me right up—took me right in

there. I was gobbled close up to the coal face. The coal broke loose. I had a little trouble, and I fell over. Got up again, and went out into the road. My light was out, and I got about half up, and fell again. Then I crawled. The gas put my light out. Crawled out at the main entrance." After resting there a few minutes, he walked to the shaft, and left the mine. The evidence tended to show that the air in the mine was thick, and so filled with noxious gases that the lights either went out, or would not blaze up over halfway.

The mine owner was bound, in the first instance, to furnish a reasonably safe place in which to work, and then to exercise ordinary care in so keeping it; and, in a coal mine, where noxious or poisonous gases are likely to be, supplying air that may be safely inhaled into the lungs is of the utmost importance. The duty of forcing in a sufficient amount of air, and so circulating it as to dilute and render harmless or expel the gases, devolved upon the proprietor, and, in the absence of knowledge to the contrary, the employee had the right to assume that this had been done.

If there were any doubt concerning this proposition, it is settled by section 2488 of the Code, which reads:

"The owner or person in charge of any mine shall provide and maintain, whether the mine be operated by shaft, slope or drift, an amount of ventilation of not less than one hundred cubic feet of air per minute for each person, nor less than five hundred cubic feet of air per minute for each mule or horse employed therein, which shall be so circulated throughout the mines as to dilute, render harmless and expel all noxious and poisonous gases in all working parts of the same; to do this, artificial means by exhaust-steam, forcing-fans, furnaces, or other contrivances of sufficient capacity and power, shall be kept in operation. If a furnace is used, it shall be so constructed by lining the up-cast for a sufficient distance with incombustible material, that fire can not be communicated to any part of the works. When the mine inspector shall find the air insufficient, or the men working under unsafe conditions, he shall at once give notice to the mine owner or his agent or person in charge, and, upon failure to make the necessary changes within a reasonable time, to be fixed by him, he may order the men out, to remain out until the mine is put in proper condition."

It will be observed that the particular appliances to be used are not specified, but that the result to be attained is clearly defined. Nor is the volume of ventilation limited. Before the proprietor has discharged his duty, regardless of the contrivances employed, or the amount of ventilation, the gases must be rendered harmless by being diluted or expelled. This is the plain import of the statute, and is emphasized by the clause authorizing the mine inspector to order the men out when the air is insufficient. The presence of gases in such mines is recognized, and the purpose of the law is to guard miners against injury therefrom. True, no penalties are provided for violation of this statute, save after notice from the inspector. Nevertheless it defines certain specific duties, a failure to discharge which by those operating a mine, in the absence of any excuse, constitutes negligence. Every person, while violating an express statute, is a wrongdoer, is ex necessitate negligent in the eyes of the law; and an innocent person, within its protection, injured thereby, is entitled to civil remedy by way of damages.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—ASSUMPTION OF RISK BY EMPLOYEES—CONSTRUCTION OF STATUTE—*Quinn v. New York, New Haven and Hartford Railroad Co.*, 55 *Northeastern Reporter*, page 891.—In a suit brought by Daniel Quinn against the above-named railroad company to recover damages for personal injuries a ruling in favor of the plaintiff, Quinn, was made in the superior court of Suffolk County, Mass., and upon this ruling the case was submitted to the supreme court of the State, judgment to be entered for the plaintiff if said court decided said ruling to be correct and for the defendant if it did not sustain the ruling. The decision of the supreme court was rendered January 4, 1900, reversing the ruling and judgment was accordingly entered for the defendant.

The opinion of the court was delivered by Chief Justice Holmes, and the syllabus of the same reads as follows:

1. Plaintiff, while in defendant's employ as brakeman, was sitting on top of a fruit car, when his head struck the cornice of a roof over a station platform. He knew that the car was larger than the ordinary cars; that this roof was not very far from the cars; that there was danger from it; and that he was then approaching it. In his application for employment he undertook, as soon as possible, to make a careful examination of all things near to the tracks, so that he might understand the dangers attending them. *Held*, that plaintiff had assumed the risk of the injury in question.

2. An application for employment, by which the servant undertook to make a careful examination of all things near the tracks, so that he might understand the dangers attending them, is not contrary to Pub. St., c. 74, § 3, which provides that no person or corporation can, by special contract with their employees, become exempt from its liabilities to them for injuries suffered by them in their employment which result from the employer's own negligence, or that of any other person in its employ.

3. It is not necessary to maintain a guard at a cornice of a roof over a station platform which is 1 foot 5 inches from the nearest line of the outside rail, since Pub. St., c. 112, § 160, requires such guard only where some portion of such structure "crosses" the railroad.

MINERS' LABOR LIENS—ENFORCEMENT OF SAME BY ASSIGNEES—LIABILITY OF LESSOR FOR LIENS OF EMPLOYEES OF LESSEE—*Mitchell v. Burwell et al.*, 81 *Northwestern Reporter*, page 193.—This was an action in equity to recover sums alleged to be due to the plaintiff for mining coal and other labor performed by himself and his assignors, and for penalties, attorney's fees, and costs, and to have established and enforced against the land in which the mining was done, improvements thereon, and personal property used in operating the mine, a lien for the amount due, and for general equitable relief. The evidence showed that one Mary Burwell owned 80 acres of land in Boone County, Iowa, on which was a coal mine; that she leased the

same to one B. J. Mallory for the term of 5 years; that the lease provided that "new machinery and improvements and iron tracking that may be added by the second party (Mallory) shall not be removed until first party has had an opportunity and reasonable time to purchase the same. If first party refuses to purchase the same, then second party may remove said improvements without further notice;" that Mallory entered into possession of the premises under his lease, and improved and worked the mine; that in 1897 he transferred the lease to the Eclipse Coal Company; that the lease was abandoned by Mallory and the coal company in January, 1898; that the plaintiff and others performed labor in and about the mine in December, 1897, and January, 1898, for which they had not been paid; that the defendant Mary Burwell denied the right of the plaintiff to a lien, either on the mine, owned by her, or on the improvements, made by Mallory and the company and left in the mine upon the abandonment of the lease, and claimed that royalties were due her by virtue of the lease when it was abandoned, and that her claim therefor was superior to any lien to which the plaintiff was entitled. In the district court of Boone County, Iowa, in which the case was heard, a decree for the plaintiff issued and no relief was given to Mary Burwell. The defendants, Mary Burwell and A. O. Burwell, appealed the case to the supreme court of the State which rendered its decision December 15, 1899, and affirmed the action of the lower court.

Chief Justice Robinson delivered the opinion, and in the course of the same used the following language:

The evidence shows that there is due the plaintiff, for himself and his assignors, the amount for which judgment in his favor was rendered, including penalty and attorney's fees. The lien which he seeks is that for which section 3105 of the Code provides, as follows: "Every laborer or miner, who shall perform labor in opening, developing, or operating any coal mine shall have a lien on all the property of the person, firm, or corporation owning or operating such mine, and used in the construction or operation thereof, including real estate and personal property, for the value of such labor, to the full amount thereof, to be secured and enforced as mechanics' liens are." The chief contention of the appellants is that the plaintiff and his assignors were not entitled to a lien, under the section quoted, on property which neither the coal company nor Mallory owned.

The record shows that the plaintiff and each of his assignors duly filed a statement for a lien for his claim substantially as required by the mechanics' lien law, and notice thereof was served on Mary Burwell. The improvements made by Mallory and the coal company were an air-shaft, an air-course, and a side track. In addition, five or more tons of iron were placed in the mine, and also numerous props and timbers of various kinds. The total value to the mine of the material furnished and improvements made was not less than the amount found by the district court [\$1,416.18]. It will be observed that the lien established by the court [\$1,416.18], although on all of the land as well as the mine and personal property, was limited to the amount which the

property had been increased in value by the improvements made by the lessees.

We have no occasion to decide the rights of miners and others who perform labor for a lessee who added nothing, by improvements or otherwise, to the value of the leased premises, but merely diminished their value by removing coal therefrom. In such a case it would be a hardship, no doubt, for the owner to be compelled to pay the wages of the laborer in operating the mine, perhaps to lose his royalty; and then to receive back the leased property at a diminished value. But that is not the case before us. Although the lessor has failed to collect royalties to which she was entitled, to the amount of nearly \$1,200, the value of the leased premises, as we have shown, has been enhanced to more than the amount of the plaintiff's claim. The statute expressly provides for a lien for labor performed in developing and operating a coal mine, upon all the property of the owner or operator of the mine used in its construction or operation. The lien was not designed to be limited to property of the operator of the mine which might be removed, or to improvements which he has made. If that were true, the lien would be ineffectual in most cases where the mines are leased, for the reason that the improvements of mines are largely of a value to the mine in which made, and not elsewhere. That is obviously true of air-shafts and air-courses, and of material used which can not be removed. Owners of mines who lease them do so charged with knowledge of the statute, which, to some extent, enters into and becomes a part of the contract. Chapter 47 of the acts of the 23d general assembly, now merged in section 3105 of the Code, was in force when the lease in question was made, and authorized the relief which the district court granted as against the appellants. The evidence and the statute authorize the decree, and it is affirmed.

DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY—ACCEPTANCE OF BENEFITS FROM RELIEF FUND—RELEASE OF DAMAGES—VALIDITY OF CONTRACT—*Petty v. Brunswick and Western Railway Co.*, 35 *Southeastern Reporter*, page 82.—In the city court of Brunswick, Ga., in a suit brought by Alfred Petty as plaintiff against the above-named railway company to recover damages for personal injuries incurred by the plaintiff while in the employ of the company, a judgment was rendered in favor of the defendant company and the plaintiff carried the case upon a writ of error to the supreme court of the State. Said court rendered its decision January 30, 1900, and affirmed the judgment of the lower court.

In the opinion of the court, which was delivered by Presiding Judge Lumpkin, certain principles of interest were laid down which are given in the syllabus of the decision, prepared by the court, in the following language:

1. A contract between an employee and his master, or another acting in the latter's interest, by the terms of which the employee, when physically injured, whether as a result of his own negligence or not,

or when sick, is to receive pecuniary and other valuable benefits, and which stipulates that his voluntary acceptance of any of such benefits in case of injury is to operate as a release of the master from all liability on account thereof, is not contrary to public policy.

2. That such a contract secured to the employee substantial benefits, and that the master contributed to the fund for the payment thereof, constituted a valuable consideration, as to the employee; and this is true though he himself made a small monthly contribution to that fund. A contract of this kind is not wanting in mutuality.

6. The acceptance by an injured employee of any benefit under a contract of the kind indicated in the first of the preceding notes is an election on his part to look exclusively to that source for compensation on account of the injury, and amounts to a complete accord and satisfaction of his claim for damages against his master therefrom arising.

SEAMEN—RIGHT TO WAGES FOR TIME OF SERVICE WHEN LEAVING SHIP BEFORE COMPLETION OF VOYAGE—INSUFFICIENT PROVISIONS—*The Forteviot*, 98 *Federal Reporter*, page 440.—This was a libel brought by seamen against the British bark *Forteviot* to recover wages. The evidence showed that the libelants had signed shipping articles for a voyage from England to New York, thence to Shanghai, thence to Tacoma, and thence back to England; that during the time they served on the vessel they were supplied with less food, on an average, than was called for by their shipping articles, and that on this account they left the ship at Tacoma and refused to serve longer. The case was heard in the United States district court for the district of Washington, western division, and by a decision rendered December 11, 1899, the court gave a judgment for the seamen.

From the opinion, delivered by District Judge Hunford, the following is quoted:

The sole question to be decided in this case is whether the libelants were justified in leaving the ship before the termination of the voyage described in their shipping articles, by reason of having suffered deprivation of sufficient food while they were in the ship.

The libelants were certainly entitled to have the full measure of the scanty allowance of food which they contracted for while serving in the ship, or sufficient to enable them to do their work without suffering from hunger. The contract between them and the ship was first broken by the captain [in failing to supply them with the amount of food contracted for], and, there being no reason to expect better treatment on the long voyage from Takoma to Europe, I hold that they were legally entitled to quit the service, and to recover full pay at the contract rate up to the time of leaving the ship.

LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE JANUARY 1, 1896.

[The Second Special Report of the Department contains all laws of the various States and Territories and of the United States relating to labor in force January 1, 1896. Later enactments are reproduced in successive issues of the Bulletin from time to time as published.]

MISSOURI.

ACTS OF 1899.

Examination, licensing, etc., of barbers.

(Page 44.)

SECTION 1. It shall be unlawful for any person to follow the occupation of a barber in this State, unless he shall have first obtained a certificate of registration, as provided in this act: *Provided, however,* That nothing in this act contained shall apply to or affect any person who is now actually engaged in such occupation, except as hereinafter provided: *Provided,* That the provisions of this law shall not apply to barbers in any city, town or village containing less than 50,000 inhabitants.

SEC. 2. A board of examiners, to consist of three (3) persons, citizens of this State for at least three (3) years prior to their appointment, is hereby created to carry out the purposes and to enforce the provisions of this act. Such board shall be appointed by the governor, one member from such persons as may be recommended by the Missouri State Barbers' Protective Association; one member from such persons as may be recommended by the Boss Barbers' Protective Association of Missouri, and one member from those persons so recommended by the Journeymen Barbers' Union: *Provided,* That all barbers must have had at least a practice of at least five (5) years at the said occupation prior to their appointment. Each member so recommended shall appear before the State board of health, whose duty it shall be to determine whether or not such member possesses sufficient knowledge of contagious and inoculations diseases to enable such member to pass judiciously upon the qualification of others in the occupation of barber. If said board of health shall reject an appointee, then the governor shall appoint someone else in place of the person so rejected, such appointment to be from the same class of persons from which the first appointment was made. If, on the other hand, the appointment be confirmed by the board, said board shall issue a certificate to that effect, and all appointments made under the provisions of this act shall date from the confirmation thereof by said State board. Each member of said board shall serve for a term of three (3) years and until his successor is appointed and qualified, except in the case of the first board, whose members shall serve one (1), two (2) and three (3) years, respectively, as specified in their appointment. Said board shall, with the approval of the State board of health, prescribe such sanitary rules as it may deem necessary with particular reference to the precautions necessary to be employed to prevent the creating and spreading of infectious or contagious diseases. A copy of such rules shall be furnished each person to whom a certificate of registration is granted. Each member of said board shall, before entering upon the discharge of his duties, give a bond in the sum of five thousand (\$5,000.00) dollars, with a surety or sureties to be approved by the secretary of state, conditioned for the faithful performance of his duties, and shall take the oath provided by law for public officers. Vacancies upon said board caused by death, resignation or expiration from any cause of the term of any member thereof, shall be filled by appointment from the same class of persons to which the deceased or retiring member belonged.

SEC. 3. Said board shall elect a president, secretary and treasurer, shall have its headquarters at such place in the State as the board may determine; shall have a common seal, and the secretary and president shall have the power to administer oaths. A majority of said board may, in meeting duly assembled, perform the duties and exercise the powers devolving upon said board under the provisions of this act.

SEC. 4. Each member of said board shall receive a compensation of three (\$3.00) dollars per day for his services, and also railroad fare and such other traveling expenses as may be necessary, in the proper discharge of his duties, and shall be paid out of any money in the hands of the treasurer of the said board. Said board shall also be allowed for such other expenditures and outlays, payable out of moneys in the hands of its treasurer, as shall be reasonable and proper for the discharge of their duties, and to carry out the provisions of this act.

SEC. 5. Said board shall report to the legislature of this State at each of its regular meetings a full statement of the receipts and disbursements of the board during the preceding two (2) years; a full statement of its doings and proceedings and such recommendations as it may deem proper, looking to the better carrying out of the intent and purposes of this act. Any money in the hands of the treasurer of said board at the time of making such report, in excess of five hundred (\$500.00) dollars, shall be paid over to the state treasurer for the maintenance of the public schools of this State.

SEC. 6. Such board shall hold public examinations at least four (4) times in each year, at such times and places as it may deem advisable, notice of such meetings to be given by publication thereof at least ten (10) days prior to such meetings, in at least two (2) newspapers published in this State, in the locality of each proposed meeting.

SEC. 7. Every person now engaged in the occupation of barber in this State shall, within ninety (90) days after the approval of this act, file with the secretary of said board an affidavit, setting forth his name, residence and the length of time during which and the place where he has practiced such occupation, and shall pay to the treasurer of said board one (\$1.00) dollar; and a certificate of registration entitling him to practice the said occupation for the fiscal year ending January thirty-first, 1900, thereupon shall be issued to him, and the holders of such certificates shall, within thirty (30) days after the expiration of their respective certificate, make application for the renewal of the same, stating the number of expiring certificate, and shall in each case pay to the treasurer of said board the sum of one (\$1.00) dollar therefor. For any and every license or certificate given or issued by the board a fee of one (\$1.00) dollar shall be paid by the person receiving the same.

SEC. 8. Any person not following the occupation of a barber at the time this act goes into operation, desiring to obtain a qualified certificate of the said occupation in this State, shall make application to said board therefor and shall pay to the treasurer of said board an examination fee of five (\$5.00) dollars and shall present himself at the next regular meeting of the board, for the examination of applicants, whereupon said board shall proceed to examine such person, and, being satisfied that he is above the age of nineteen (19) years, of good moral character, free from contagious or infectious diseases, has either (a) studied the trade for two (2) years as an apprentice, under a qualified and practicing barber, or (b) studied the trade for at least two (2) years in a properly appointed and conducted barber school or college, under the instructions of a qualified barber, or (c) practiced the trade in another State for at least two (2) years, and is possessed of the requisite skill in said trade to properly perform all the duties thereof, including his ability in the preparation of the tools, shaving, hair cutting, and all the duties and services incident thereto, and is possessed of sufficient knowledge concerning the common diseases of the face and skin to avoid the aggravation and spreading thereof in the practice of said trade, shall enter his name in the register hereafter provided for, and shall issue to him a certificate of registration, authorizing him to practice said trade in this State: *Provided*, That whenever it appears that applicant has acquired his knowledge of said trade in a barber school or college the board shall be judges of whether said barber school or college is properly appointed and conducted and under proper instructions to give sufficient training in said trade. All persons making such application for examination under the provisions of this act shall be allowed to practice the occupation of barbering until the meeting for the next regular examination by the said board, and no longer, and the secretary shall give him a permit to do so: *Provided*, however, That such time may be extended by the board for good cause shown.

SEC. 9. Nothing in this act shall prohibit any person from serving as an apprentice in said trade under license issued by the board under a barber authorized to practice (in) the same, under this act, nor from serving as a student in any school or college for the teaching of said trade, under the instructions of a qualified barber: *Provided*, That in no barber shop shall there be more than one apprentice to two (2) barbers, authorized under this act to practice said occupation, but all barber shops having but one chair shall be entitled to one apprentice: *And provided*, That all barber schools or colleges shall keep prominently displayed a sign, barber college or barber school, and no other sign or signs: *Provided*, That all barbers or barber schools or colleges

who shall take an apprentice or student shall file immediately with said board the name and age of such apprentice or student, and the said board shall cause the same to be entered in a register kept for that purpose.

SEC. 10. Said board shall furnish to each person to whom a certificate of registration is issued a card or certificate, in such form as it shall adopt, bearing the seal of the board and the signature of its president and secretary, certifying that the holder thereof is entitled to practice the occupation of barber in this State, and it shall be the duty of the holder of such card or insignia to post the same in a conspicuous place in front of his working chair where it may be readily seen by all persons whom he may serve.

SEC. 11. Said board shall keep a register, in which shall be entered the names of all persons to whom certificates are issued, and to whom permits for serving apprenticeship, or as students, under this act, and said register shall, at all times, be open to public inspection.

SEC. 12. Said board shall have power to revoke any certificate of registration granted by it under this act for (a) conviction of crime; (b) habitual drunkenness; (c) gross incompetency; (d) failure or refusal to properly provide or guard against contagious or infectious disease, or the spreading thereof, in the practice of the occupation aforesaid; or (e) violation of the rules of the board mentioned in section two (2) of this act: *Provided*, That before any certificate shall be so revoked the holder thereof shall have notice in writing of the charge or charges against him, and shall, at a day specified in said notice, at least five (5) days after the service thereof, be given a public hearing on said charges, and full opportunity to produce testimony in his behalf and to confront the witnesses against him. Any person whose certificate has been so revoked may, after the expiration of ninety (90) days, apply to have the same regranted to him, upon a satisfactory showing that the disqualification has ceased.

SEC. 13. Any person who is engaged in the capacity so as to shave the beard or cut and dress the hair for the general public, shall be construed as practicing the occupation of barber, and the so said barber or barbers shall be required to fulfill all requirements within the meaning of this act.

SEC. 14. Any person practicing the occupation of barber without having obtained a certificate of registration as provided in this act, or willfully employing a barber who has not such certificate, or falsely pretending to be qualified to practice as barber or instructor or teacher of said occupation under this act, or failing to keep the certificate or card mentioned in section ten (10) of this act properly displayed, or failing to comply with such sanitary rules as the board, in conjunction with the State board of health, prescribes, or for the violation of any of the provisions of this act, shall be deemed guilty of a misdemeanor, and the board shall proceed against all such persons, and upon conviction thereof they shall be punished by a fine of not less than ten (\$10.00) dollars or more than one hundred (\$100.00) dollars, or by imprisonment in the county jail not less than ten (10) days or more than ninety (90) days. Prosecutions under this act shall be begun and carried on in the same manner as other prosecutions for misdemeanors in this State.

Approved May 5, 1899.

Free public employment bureaus.

(Page 272.)

SECTION 1. The commissioner of labor statistics shall organize and establish in all cities in Missouri containing one hundred thousand inhabitants or more, a free public employment bureau, for the purpose of receiving applications of persons seeking employment and applications of persons seeking to employ labor. No compensation or fee shall be charged or received, directly or indirectly, from persons applying for employment or help through any such bureau. Such commissioner shall appoint for each bureau one superintendent, and may appoint for each one clerk, and may remove the same for good and sufficient cause. The salary of the superintendents shall not exceed one hundred dollars per month, and the salary of the clerks shall not exceed seventy-five dollars per month. Such salaries and the expenses of such bureaus shall be paid in the same manner as other expenses of the bureau of labor statistics.

SEC. 2. The superintendent of each free public employment bureau shall receive and record, in a book to be kept for that purpose, the names of all persons applying for employment or for help, designating opposite the name and address of each applicant the character of employment or help desired. Such superintendent shall also perform such other duties in the collection of labor statistics and in keeping of books

and accounts of his bureau as the commissioner may require, and shall report monthly to the commissioner of labor statistics the expenses of maintaining his bureau.

SEC. 3. Every application for employment or help made to a free employment bureau shall be void after thirty days from its receipt, unless removed by the applicant. If an applicant for help has secured the same, he shall, within ten days thereafter, notify the superintendent of the bureau to which application was therefor made. Such notice shall contain the name and last preceding address of the employees received through such bureau. If any such applicant neglects to notify such superintendent he shall be barred from all future rights and privileges of such employment bureau, at the discretion of the commissioner of labor statistics, to whom the superintendent shall report such neglect.

SEC. 4. The urgent demand for the immediate application of the provisions of this act is such as to create an emergency within the meaning of the constitution; therefore, this act shall take effect and be in force from and after its passage.

Approved May 23, 1899.

Manufacturing in tenement or dwelling houses—Sweating system.

(Page 273.)

SECTION 1. No room or apartment in any tenement or dwelling house shall be used by more than three persons, not immediate members of the family living therein, for the manufacture of any wearing apparel, purses, feathers, artificial flowers or other goods for male or female wear. Every person, firm or corporation contracting for the manufacture of any of the articles mentioned in this section, or giving out the complete material from which they are to be made, or to be wholly or partially finished, shall keep a register of the names and addresses of all persons to whom such work is given to be made or whom they have contracted to do the same. Such register shall be produced for the inspection, and a copy thereof shall be furnished to the labor commissioner or factory inspector on demand.

SEC. 2. No person, firm or corporation shall knowingly sell or expose for sale any of the articles mentioned herein when such articles were made in violation of this act; and the labor commissioner, his deputy or any officer appointed to enforce the provisions of this act, who shall find any such articles made in violation of the provisions of this act, who shall find that the articles herein mentioned are made under unclean or unhealthy conditions, shall conspicuously affix thereto a label containing the words "tenement made" or "made under unhealthy conditions," as the case may be, printed in plain letters on a tag not less than two inches in length, and it shall be unlawful to remove such tag, except by the permission of the labor commissioner or the officer under whose direction such label was affixed.

SEC. 3. Any person, firm or corporation engaged in the manufacture or sale of the articles herein mentioned who shall violate or who shall fail to comply with the provisions of this act, shall be deemed guilty of a misdemeanor, and on conviction, shall be punished by a fine of not less than ten nor more than fifty dollars, or by imprisonment in the county jail for a period of not more than ten days, or by both such fine and imprisonment.

Approved June 2, 1899.

Sanitation and hours of labor in bakeries, etc.

(Page 274.)

SECTION 1. No employee shall be required, permitted or suffered to work in a biscuit, bread, pastry or cake bakery or other bakery or confectionery establishment in this State more than six days in one week, said week to commence at a stated time, "post meridian," on Sunday, and to terminate not later than the corresponding time on Saturday of the same week—excepted from this rule may be the time on Sunday for setting the sponges for the night's work following. No person under the age of sixteen years shall be employed in any bake shop between the hours of nine o'clock at night and five o'clock in the morning.

SEC. 2. All rooms or buildings occupied as biscuit, bread or cake bakeries shall be drained and plumbed in a manner to conduce to the proper and healthful sanitary condition thereof, and constructed with air-shafts, windows or ventilating pipes, sufficient to insure ventilation. The furniture and utensils in such rooms shall be so arranged that the furniture and floor may at all times be kept in a proper and healthful sanitary condition, and no water-closet, earth closet, privy or ash pit shall be within or communicate directly with the bake room.

SEC. 3. The manufactured flour or meal products shall be kept in perfectly clean, dry and properly ventilated rooms, so arranged that the floor, shelves and all facilities for storing same can be easily and perfectly cleaned.

SEC. 4. The sleeping apartments for the persons employed in bakeries or confectionery establishments shall be separate and distinct from the room or rooms used for manufacture or storage of flour or meal products or for the storage of flour, meal or other articles used in the manufacture or preparation of such product.

SEC. 5. No employer shall knowingly require, permit or suffer any person to work in his bake shop who is affected with consumption of the lungs or with scrofula or any communicable skin disease, and every person is hereby required to keep himself in a cleanly condition while engaged in the manufacture or handling of such products.

SEC. 6. Any person who violates any of the provisions of this act, or refuses to comply with the requirements thereof, shall be deemed guilty of a misdemeanor, and, on conviction, shall be punished by a fine of not less than ten or more than one hundred dollars.

SEC. 7. It shall be the duty of [the] labor commissioner or his deputy to see that the provisions of this act are carried into effect, and it is hereby made the duty of the prosecuting attorneys of each county or city in this State to lend all possible aid in all prosecutions for violations of any of the provisions of this act.

SEC. 8. A copy of this act shall be kept conspicuously posted in every bake shop or confectionery establishment in this State.

SEC. 9. Sections 17 and 18 of an act entitled "An act relating to manufacturing, mechanical, mercantile and other establishments and places, and the employment, safety, health and work hours of employees," approved April 20, 1891, are hereby repealed.

Approved May 29, 1899.

Coal mine regulations—Screening of coal before weighing prohibited.

(Page 303.)

SECTION 1. Section 7054, chapter 115, article 1, of the Revised Statutes of the State of Missouri, is hereby amended * * * so that said section, when amended, shall read as follows:

SECTION 7054. It shall be unlawful for any mine owner, lessee or operator of coal mines in this State, employing miners at bushel or ton rates, or other quantity, to pass the output of coal mined by said miners over any screen or any other device which shall take any part from the value thereof before the same shall have been weighed and duly credited to the employee sending the same to the surface, and accounted for at the legal rate of weights as fixed by the laws of Missouri; and no employee within the meaning of this act shall be deemed to have waived any right accruing to him under this section by any contract he may make contrary to the provisions thereof. And any provision, contract or agreement between mine owners or operators thereof, and the miners employed therein, whereby the provisions of this act are waived, modified or annulled, shall be void and of no effect, and the coal sent to the surface shall be accepted or rejected; and if accepted, shall be weighed in accordance with the provisions of this act, and right of action shall not be invalidated by reason of any contract or agreement; and any owner, agent or operator of any coal mine in this State who shall knowingly violate any of the provisions of this section shall be deemed guilty of a misdemeanor, and, upon conviction, shall be punished by a fine of not less than two hundred dollars nor more than five hundred dollars for each offense, or by imprisonment in the county jail for a period of not less than sixty days nor more than six months, or by both such fine and imprisonment; proceedings to be instituted in any court having competent jurisdiction.

Approved June 3, 1899.

Coal mine regulations—Weighing of coal.

(Page 304.)

SECTION 1. Section 7056, chapter 115, article 1, relating to the weighing of coal and false scales, is hereby repealed and a new section in lieu thereof is enacted as follows:

SECTION 7056. That every owner, agent or operator of any coal mine in the State, employing miners at bushel or ton rates, shall provide at such mine or mines accurate and suitable scales of standard manufacture upon which shall be weighed all coal

coming out of such mine or mines; said scale or scales to be located at a reasonable distance from the point where the coal is delivered to the surface opening of the mine or mines, and in no case shall said scale or scales be located at a greater distance from said surface opening of the mine or mines than one hundred feet. Any owner, agent, operator, person, or persons having or using any scales or scale for the purpose of weighing the product of the miners' labor, and so arranges or constructs said scale or scales, or by any contrivance therewith connected causes the fraudulent weighing of such coal or said product, or who shall knowingly resort to, permit or employ any person or means whatsoever, by reason of which said product of the mine is not correctly weighed and reported in accordance with the true weight and the provisions of this act, shall be deemed guilty of a misdemeanor, and shall, upon conviction for each and every offense, be punished by a fine of not less than two hundred dollars, nor more than five hundred dollars, or by imprisonment in the county jail for a period not to exceed ninety days, or by both such fine and imprisonment; proceedings to be instituted in any court of competent jurisdiction.

Approved March 15, 1899.

Payment of wages.

(Page 305.)

SECTION 1. Sections 7058 and 7060 [of the Revised Statutes of Missouri for 1889] are hereby repealed.

Approved May 15, 1899.

Payment of wages.

(Page 305.)

SECTION 1. Section 7059 of the Revised Statutes of Missouri for 1889, as amended by the acts of 1891, page 183, is hereby repealed and the following new section enacted in lieu thereof, to be known as section 7059:

SECTION 7059. The employees of the operators of all mines operated within this State for the production of any kind of mineral shall be regularly paid in full of all wages due them at least once in every fifteen (15) days, except that the operators of coal mines shall pay their employees once every fifteen days, on demand of any such employee, and at no pay day shall there be withheld any of the earnings due any employee. Any such operator who fails or refuses to pay his employees, their agents, assigns or anyone duly authorized to collect such wages, or anyone interested in the payment due such employees, as in this section provided, shall become immediately liable to any such employee, his agents or assigns, or anyone interested for an amount double the sum due such employee at the time of such failure or refusal to pay the wages due, to be recovered by civil action in any court of competent jurisdiction within this State. And no employee, within the meaning of this article, shall be deemed to have waived any right accruing to him under this section by any contract he may make contrary to the provisions hereof: *Provided*, Coal mining companies may contract with their employees to pay once a month: *And provided, further*, That at no pay day of any coal mining company shall there be withheld of the earnings of any coal mine employee any sum to exceed the amount due him for his labor for ten days next preceding any such pay day.

Approved May 3, 1899.

Mine inspectors.

(Page 306.)

SECTION 1. Section 7071 of an act to repeal section 7071 of an act entitled "An act to repeal section 7071, article 2, chapter 115 of the Revised Statutes of the State of Missouri," approved April 18, 1893, is hereby amended * * * so that said section, when so amended, shall read as follows:

SECTION 7071. The governor shall appoint two mine inspectors, by and with the advice and consent of the senate, one for coal mines, who shall have had practical experience in coal mining, and one for lead, zinc, iron and other mines, and shall have practical mining experience in mines other than coal mines; neither of whom shall be interested in any mine; each to receive a salary of \$1,500 per annum and actual traveling expenses, to be paid quarterly out of the general revenue fund.

Approved May 18, 1899.

Bureau of mines—Mine inspectors.

(Page 307.)

SECTION 1. An act entitled "An act to repeal section 7071, article 2, chapter 115, Revised Statutes of 1889, relating to the safety and inspection of mines," approved April 18, 1893, is hereby repealed and the following enacted in lieu thereof, to be known as section 7071:

SECTION 7071. There is hereby created a department to be known as the bureau of mines, mining and mine inspection, with its office located in the State capitol. The governor shall appoint two mine inspectors, one for coal mines, who shall have had practical experience in coal mines, and one for lead, zinc, iron and other mines, who shall have had practical experience in lead and zinc mines and mines other than coal mines; neither of whom shall be interested in any mine, and each to receive a salary of \$1,500.00 per annum. The inspectors shall have authority to appoint a secretary who, in addition to his other qualifications, shall be a draftsman and competent to thoroughly understand and prepare mine maps, and who shall act as assistant in the field to either of the inspectors when required, and shall receive a salary of \$1,500 per annum. There shall also be allowed and paid out of the general revenue fund the actual traveling expenses of the inspectors, but not of the assistant, and the cost of postage, express charges and telegraphic messages.

Approved April 28, 1899.

[NOTE.—Although the two acts immediately preceding this note are both published in the Laws of Missouri of 1899, it seems probable that the former is intended to repeal the latter. As, however, they are both published by the State authorities they are both reproduced here.]

Duties of mine inspectors.

(Page 307.)

SECTION 1. Section 7072, chapter 115, article 2, of the Revised Statutes of the State of Missouri, is hereby amended * * * so that said section, when amended, shall read as follows:

SECTION 7072. The inspectors provided for in this article shall see that every necessary precaution is taken to secure the health and safety of the workmen employed in any of the mines in the State, that the provisions and requirements provided for in this article be faithfully observed and obeyed, and the penalties of the law enforced. They shall also collect and tabulate in their report, to be made to the governor on the 15th day of October of each year, the extent of the workable mining lands in this State by counties; also the manner of mining, whether by shaft, slope, or drift, the number of mines in operation, the number of men employed therein, the amount of capital invested and the amount and value of all mine products.

Approved May 17, 1899.

Competency of coal miners—Amending chapter 115, article 2, of the Revised Statutes of 1889, by adding a new section thereto, to be known as section 7077c.

(Page 308.)

[SECTION 1.] SECTION 7077c. Any person desiring to perform the work of a coal miner, and for himself to conduct room, entry or other underground mining in coal mines in this State, shall before being permitted to engage in such work, produce evidence of a satisfactory nature, that he has for two successive years worked in coal mines with or as a practical miner; such applicant to furnish evidence of his experience and qualifications to the coal mine inspector or to the person designated by said inspector to pass upon the competency of such applicant, and until said applicant shall have fully satisfied the coal mine inspector or the party designated by said inspector at the mine wherein such employment is sought, of his fitness to perform the duties as above mentioned, he shall not be allowed to mine coal unless associated with a practical miner for such length of time as will qualify said applicant to safely for himself and others perform underground work, and any owner, agent, or operator of any coal mine in this State, who shall knowingly violate any of the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction, shall be punished by a fine of not less than fifty dollars nor more than two hundred dollars for each and every offense or by imprisonment in the county jail for a period of not less than thirty days nor more than sixty days, or by both such fine and imprison-

Sec. 2. The object of this department shall be to collect, assort, systematize and present in annual report to the governor, to be by him transmitted biennially to the general assembly, statistical details and information relating to all the departments of labor in the State, especially in its relations to the commercial, industrial, social, educational and sanitary condition of the laboring classes, and to the permanent prosperity of the productive industries of the State, and also to secure the inspection of all factories, warehouses, workshops, foundries, machine shops and other manufacturing establishments, where persons, male and female, are employed throughout the State, and the observance of the regulations herein relating thereto. (R. S. 1889, sec. 8216, amended.)

Sec. 3. The governor shall, with the advice and consent of the senate, appoint, immediately after this article goes into effect, and every two years thereafter, commencing on the first Wednesday in February, 1885, some suitable person to perform the duties herein required, who shall be known as "commissioner of labor statistics and inspection," and who shall keep an office at the permanent seat of government. (R. S. 1889, sec. 8717, amended.)

Sec. 4. The commissioner shall have power and authority in the discharge of his duties to enter and to inspect all factories, warehouses, elevators, workshops, tunnels, foundries, machine shops and other manufacturing establishments, and he shall, as far as practicable, inspect or cause to be inspected the same, and shall, annually, on or before the 5th day of November, present a report thereof, in writing, to the governor, which shall contain statistical details relating to all departments of labor in the State, and to the inspection made by him, together with such other information as is contemplated by section 8216. (R. S. 1889, sec. 8218, amended.)

Sec. 5. The commissioner shall have power to administer oaths or affirmations, to examine witnesses and to take and preserve evidence; and it shall be the duty of all State, county and municipal officers to furnish to said commissioner, upon his request, all statistical information in reference to labor which may be in their possession as such officers. (R. S. 1889, sec. 8219.)

Sec. 6. The owner, lessee, operator or manager of any factory, workshop, warehouse, elevator, foundry, machine shop or other manufacturing establishment, shall not put at work or place therein for the purpose of labor or service, more persons in any one room than hygienic laws will warrant with safety to the health of such persons; all such rooms or places of employment shall have sufficient ventilation to carry off all foul or impure air, and to reduce the air of such room or place of employment to the standard of fresh air as near as may be practicable. Such rooms or places shall also have a sufficient number of doors, stairways and fire escapes for the ready egress and escape of the maximum number of employees therein; and it is hereby made the duty of said commissioner to include in his annual report any nonobservance of the requirements and regulations contained in this section which may come to his knowledge, together with the facts in relation thereto, and such suggestions and recommendations as he may deem proper. (R. S. 1889, sec. 8220, amended.)

Sec. 7. Any owner, operator, manager, or lessee of any factory, workshop, warehouse, elevator, foundry, machine shop or other manufacturing establishment, or any agent or employee of such owner, operator, manager or lessee, who shall refuse to said commissioner admission therein for the purpose of inspection, or who shall, when requested by him, neglect or refuse to furnish to him any statistical or other information relative to his duties which may be in their possession or under their control, shall, for every such neglect or refusal, be deemed guilty of a misdemeanor, and shall, on conviction, be fined in a sum not less than twenty-five nor more than one hundred dollars. (R. S. 1889, sec. 8221, amended.)

Sec. 8. The commissioner of labor statistics and inspection shall receive an annual salary of two thousand dollars, payable monthly, and said commissioner is hereby authorized to employ such assistance and incur such expense, not exceeding two thousand dollars per annum, as may be necessary to carry out the provisions of this article, such expenses to be paid on the vouchers presented by the commissioner: *Provided, however,* That said expenses shall not exceed, in any one year, the amount appropriated therefor; said commissioner shall, before entering upon the duties of his office, execute a bond to the State of Missouri, in the sum of twenty thousand dollars, with two or more good and sufficient sureties, conditioned upon the faithful, honest and impartial performance of his duties under this article, which bond shall be approved by the state auditor and filed in his office. Said commissioner shall include in his annual report to the governor an itemized statement of the expenses of the bureau incurred by him. (R. S. 1889, sec. 8222.)

Sec. 9. Nothing herein contained shall be construed to repeal or in any way affect the provisions of an act entitled "An act providing for the health and safety of persons employed in coal mines, and providing for the inspection of same," approved

March 23, 1881, and it is hereby made the duty of said commissioner to secure, as far as may be in his power, a proper observance of the provisions of said act on the part of county and other courts throughout the State. (R. S. 1889, sec. 8223, amended.)

ARTICLE II.

SECTION 2. It shall be the duty of every owner, operator or lessee of any factory, foundry, machine shop or other manufacturing establishment doing business within this State to report, annually, on or before the first day of March, to the commissioner of the bureau of labor statistics and inspection, the name of firm or corporation and the number of members, male and female, constituting the same; where located, capital invested in grounds, buildings and machinery; class and value of goods manufactured, aggregate value of raw material used; total number of days in operation; amount paid yearly for rent, taxes and insurance; total amount paid in wages; total number of employees, male and female; number engaged in clerical and manual labor; with detailed classification of the number and sex of employees engaged in each class, and average daily wages paid to each. (R. S. 1889, sec. 8225, amended.)

SEC. 3. The commissioner of the bureau of the statistics of labor is hereby authorized to furnish suitable blanks to the owner, operator, manager or lessee of any factory, workshop, elevator, foundry, machine shop or any other manufacturing establishment, to enable said owner, operator, manager or lessee to intelligently comply with the provisions of section 8225 of this article; and any such owner, operator, manager or lessee who shall neglect or refuse to comply with the provisions of this article, or who shall untruthfully answer any question or questions put to him by the commissioner of labor, in a circular or otherwise, in furtherance of the provisions of section 8225, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine of not less than one hundred dollars nor more than two hundred dollars. (R. S. 1889, sec. 8226, amended.)

SEC. 4. The fact that the collection of statistics of last year's manufactures should be begun at once, creates an emergency within the meaning of the constitution; therefore, this act shall take effect and be in force from and after its passage.

Approved May 31, 1899.

RECENT GOVERNMENT CONTRACTS.

[The Secretaries of the Treasury, War, and Navy Departments have consented to furnish statements of all contracts for constructions and repairs entered into by them. These, as received, will appear from time to time in the Bulletin.]

The following contracts have been made by the office of the Supervising Architect of the Treasury:

ELLIS ISLAND, N. Y.—May 4, 1900. Contract with Louis Wechsler, New York, N. Y., for construction, except electric-light wiring, heating and ventilating apparatus, and elevators, of the immigrants' disinfecting bath house and laundry, the kitchen and restaurant building, certain covered walks between buildings, and the boiler house, \$135,400. Work to be completed December 1, 1900.

PHILADELPHIA, PA.—May 31, 1900. Contract with Chas. McCaul for completion, except elevators, electric wiring and conduits, of Mint building, \$450,000. Work to be completed May 1, 1901.

OMAHA, NEBR.—June 7, 1900. Contract with Charles W. Gindele Company, Chicago, Ill., for extension, and changes incidental thereto, of court-house, custom-house, and post-office, \$340,000. Work to be completed within sixteen months.

SAN FRANCISCO, CAL.—June 20, 1900. Contract with McPhee Company for cleaning and pointing stone facing of the branch mint, \$5,540. Work to be completed within eighty-five days.

CHICAGO, ILL.—June 21, 1900. Contract with The Campbell Building Company, for the extension, except heating apparatus, electric wiring, and approaches, to the temporary building for the post-office, \$28,937. Work to be completed within ninety days.

PHILADELPHIA, PA.—June 25, 1900. Contract with Keller, Pike & Co., for the installation of a complete system of electric wiring in the Mint building, \$27,460. Work to be completed within one hundred days.

WASHINGTON, D. C.—July 3, 1900. Contract with E. Keeler Company, Williamsport, Pa., for new boilers, etc., for the Treasury building, \$17,980. Work to be completed by October 1, 1900.

WASHINGTON, D. C.—July 3, 1900. Contract with Otis Elevator Company, New York, N. Y., for electric elevator for the Bureau of Engraving and Printing, \$6,940. Work to be completed within ninety days.

PHILADELPHIA, PA.—July 5, 1900. Contract with Stokes & Parrish Elevator Company for eight electric elevators for new Mint building, \$44,980. Work to be completed within one hundred and forty working days.

DUBUQUE, IOWA.—July 9, 1900. Contract with Otis Elevator Company, New York, N. Y., for electric elevator for custom-house and post-office, \$6,490. Work to be completed within ninety days.

ST. LOUIS, MO.—July 9, 1900. Contract with H. D. Crane, Cincinnati, Ohio, for alterations in heating and ventilating apparatus of custom-house and post-office, \$10,881. Work to be completed within seventy days.

BULLETIN

OF THE

DEPARTMENT OF LABOR.

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BULLETIN
OF THE
DEPARTMENT OF LABOR.

No. 30.

WASHINGTON.

SEPTEMBER, 1900.

TREND OF WAGES FROM 1891 TO 1900.

In connection with the article in the July Bulletin of the Department, entitled "Trusts and industrial combinations," there was given a table showing the rates of wages in various occupations for a period extending back in most cases from the present year to 1891. It was expected that a summary of the data shown there could be made in time to be included in that Bulletin, but owing to the unavoidable delay in securing certain of the returns and the large amount of work necessary to a careful statement it was found impossible to accomplish the work properly in the limited time at the disposal of the Department.

The table which has been referred to is "Table I—Rates of wages in various occupations," and will be found on pages 766 to 812 of Bulletin No. 29. The data there shown comprise figures relative to the rates of wages paid in a large number of industries and occupations, and were secured directly from the pay rolls of establishments located in all sections of the country—North, East, South, and West. As before stated, the figures are in most cases for a period of ten years, although in some instances a shorter period was taken owing to the lack of reliable data in some establishments for the earlier years.

It was found possible in the compilation of this summary to include data pertaining to 148 establishments, representing 26 industries and 192 occupations. The period covered includes the years from 1891 to 1900—ten years—and those items for which data for the whole period were not given were excluded from consideration in the summary. All the data included, except those for mining, relate to the manufacturing industries, the data relative to steam railroads and street railways having been excluded from the summary. While the data from which this table is drawn do not afford the basis for a strictly

scientific calculation of relative wages, a careful examination of the figures given in Table I leads to the belief that they are fairly representative, and that the results here given, showing the trend of wages from 1891 to 1900, are entirely fair and undoubtedly approximate very closely the actual conditions for the whole country. The table follows:

RELATIVE WAGES FROM 1891 TO 1900, INCLUSIVE.

Year.	Relative wages.
1891.....	100.00
1892.....	100.30
1893.....	99.32
1894.....	98.06
1895.....	97.88
1896.....	97.93
1897.....	98.96
1898.....	98.79
1899.....	101.54
1900.....	103.43

In this table the average of the wages for 1891 is taken as the basis and, as will be seen, represents 100. The relative figures for each of the remaining years of the period are secured by dividing the average wages for 1891 into those for each of these years. The wages for 1892 and subsequent years consequently represent percentages of the wages for 1891.

Taking the average for 1891, representing 100, as has been explained, it is seen that in the year 1892 a very slight increase occurred, approximating one-third of 1 per cent, the relative figures being 100.30. In 1893, however, the decrease in wages began, the drop being about 1 per cent from the wages of the previous year, the relative figures being 99.32. In 1894 a further drop of more than 1 per cent occurred, the relative figures being 98.06, while in 1895 the lowest wages of the period are shown, the relative wages being 97.88. In 1896 a very slight increase occurred, 97.93 being the figures for that year, and in 1897 an increase of more than 1 per cent placed the figures at 98.96. In 1898 it is seen that a very slight decrease occurred, the figures being 98.79, but in 1899 an increase of more than 2½ per cent placed the relative wages higher than those for 1891 or 1892, the figures being 101.54. This rapid rise continued in 1900, the general plane of wages in this year being 103.43, or nearly 2 per cent greater than the plane for 1899, and 3.43 per cent greater than that for 1891.

It may be stated that during the years in which the course of wages declined the rates of 1891 and 1892 in many instances remained unchanged, and in like manner during the last few years, in which the general course of wages has been upward, the wages in these instances have not, of course, responded to the general rise. In other instances the per cent of decrease was notably large during the years of depression, while during the last two years of the period the reverse is true

and a much larger increase really took place than that indicated by the table. In other words, wages in some instances show but little fluctuation, while in other instances they are much more sensitive, responding quickly to general conditions of depression or activity. The average condition or general level only is shown in the table, and while, for the reasons stated, the fluctuations during the period have not been so great as popular opinion would indicate, the figures for 1899 and 1900 show a gratifying average increase over the conditions of 1891 and 1892, when wages in gold were higher than at any period in the history of the country prior to the present year.

STATISTICS OF CITIES.

By an act of Congress which was approved and became law July 1, 1898, the Commissioner of Labor was called upon to make an investigation into the statistics of the cities of the United States having over 30,000 population. The paragraph of the act referred to is as follows:

The Commissioner of Labor is authorized to compile and publish annually, as a part of the Bulletin of the Department of Labor, an abstract of the main features of the official statistics of the cities of the United States having over 30,000 population.

In accordance with this act a compilation was attempted from the printed reports of various cities, but owing to lack of uniformity in these reports, and in many cases to the lack of reports themselves, it was found impossible to make such a classification of the various items relating to the governmental, financial, and other conditions of these cities as seemed necessary for a satisfactory comparison. A schedule of inquiries was therefore prepared and the work taken up by the special agents of the Department, by personal visits to the various officials of the cities coming within the scope of the investigation. These officials in many ways manifested the utmost interest in the investigation and contributed freely of their time and labor in compiling the data desired and in making the report a success. The results were printed in the Bulletin of the Department of Labor for September, 1899.

As will be seen by reference to the language of the law which has been quoted, provision was made for a similar inquiry each year. The present report is the second one upon this subject, and in it an effort has been made to enlarge somewhat upon the first one and to slightly change some of the inquiries propounded in order to secure fuller information on the subjects covered. The thanks of the Department are due to the officials of the various cities which were visited for the purpose of securing the data for this report for their cordial cooperation in the effort to reduce the official records to such form as seemed necessary for satisfactory comparison. It is hoped that experience will render this task easier each year.

The report contained in the Bulletin for September, 1899, included 140 cities, this being the number in the United States which were at that time believed to have a population of 30,000 or over. The results of the Twelfth Census as regards the population of cities were not avail-

able when the data were collected for this investigation, but according to the best estimates that could be secured the Department considered itself justified in including but 129 cities in this year's report and which have been canvassed by the agents of the Department for the various details necessary to complete the tables included in the report. Several cities which were supposed, when this information was collected, to have less than 30,000 population have since been shown by the census returns to have more than that number. This information, however, came too late to permit their inclusion in this report. These cities are the following: Montgomery, Ala., Fitchburg and Newton, Mass., Bayonne, N. J., Schenectady, N. Y., and Chester and York, Pa. They will, of course, be included in the report for next year.

The titles of the nineteen tables embraced in the investigation are as follows:

Table I.—Population, area, period covered, etc.

Table II.—Police, retail liquor saloons, and arrests, by causes.

Table III.—Firemen, fire equipment, and property loss from fires.

Table IV.—Marriages and births.

Table V.—Deaths, by causes.

Table VI.—Percentage of deaths from each specified cause.

Table VII.—Death rate per 1,000 population.

Table VIII.—Area of public parks, and of streets paved, by kind of pavement.

Table IX.—Care of streets, disposal of garbage, and food and sanitary inspection.

Table X.—Public schools and libraries.

Table XI.—Charities: Almshouses, charitable homes, etc., orphan asylums, and hospitals.

Table XII.—Cost of water, gas, and electric-light plants owned and operated by cities.

Table XIII.—Debt, basis of assessment, assessed valuation of property, and taxation.

Table XIV.—Income from all sources.

Table XV.—Expenditures for construction and other capital outlay.

Table XVI.—Expenditures for maintenance and operation.

Table XVII.—Summary of income and expenditures

Table XVIII.—Assets.

Table XIX.—Per capita debt, assessed valuation of property, and expenditures for maintenance.

These tables, which immediately follow the discussion of the same, will be taken up in their order and a short analysis and description of each will be presented. At the same time there will be given information as to the various changes from last year which have been adopted in the preparation of this year's report.

Table I.—Population, area, period covered, etc.—In this table, as in the remaining eighteen tables, the 129 cities in the United States, selected for this investigation as having a population of 30,000 or over, are presented in the order of their population, the largest being placed first. The date of incorporation of each of the cities is first given, followed by the population at the Twelfth United States Census,

June 1, 1900. In several cases it was found that the city had been reincorporated. In each of such cases the date given is the one on which the city was first incorporated, the date of reincorporation being given in a foot-note. This table also presents information as to the area in acres of each of the cities, together with the dates of ending of the years covered by the investigation. These areas include both land and water, when not otherwise noted. As regards the dates of ending of the years covered, it is necessary to say that in most of the cities investigated the various departments of the city government, such as fire, police, street, etc., made their reports for a different year, one department having December 31 as the end of its statistical year, while the others had their years end on other dates. It was thought important in connection with the study of the data included in the various tables to furnish a statement as to the dates of ending of the years for which the information is given. Where but a single date is given under this heading, all the various city departments close their year on the same day. Where the year of the various departments ended on different dates, all the necessary information as to the ending of the same is furnished in this column. All data in the tables, with the exception of those which are noted, cover one year's transactions, and that the last year for which the facts were obtainable. It will be noticed in comparing the report for last year with the present one that the data in a few of the cities are for the same period as was reported last year. This is due to the fact that the schedules for this report were secured earlier than for the former one, and that consequently a full year had not elapsed since the former visit of the agent. It is expected in the future that this subject will be taken up at about the same date as this year, and that consequently there will be no further duplication of data for any of the cities.

Table II.—Police, retail liquor saloons, and arrests, by causes.—This table shows the number of policemen in each of the cities, the number including not only patrolmen but officers, such as sergeants, lieutenants, etc. Persons employed as messengers, matrons, janitors, drivers, etc., are not included. In this table are shown also the number of licensed retail liquor saloons, and, immediately following, the number of arrests. The licensed retail liquor saloons reported do not include clubs, drug stores, etc. It was attempted last year to secure data as to the number of convictions for the various offenses considered in this table. In a few cases it was found possible to secure these data, but in most cases no accurate information could be had on this subject. Owing to the very small number of cities for which such information could be secured, data relating to the number of convictions have been omitted from this year's report. The arrests are classified according to the causes for which persons were arrested, as drunk-

eness, disturbing the peace, assault and battery, homicide, vagrancy, housebreaking, and larceny. The arrests for other causes are given under "all other offenses," which is followed by a column showing the total arrests for all offenses. It was found that there was no uniform classification of offenses causing arrest in the various cities, different cities entering a different charge for a similar offense. Hence the following statement is given to show what offenses were combined in each item of the classification in the table: Drunkenness includes "common drunk," "drunk and disorderly," and all cases where drunkenness in any form was the primary cause of arrest; disturbing the peace includes all cases of disorderly conduct not attributable to drunkenness; assault and battery includes all cases of assault; vagrancy includes arrests of beggars, tramps, loafers, loiterers, and all persons without an apparent means of support; housebreaking includes burglary and all cases of breaking and entering, and larceny includes pocket picking, robbery, and all cases of theft.

Table III.—Firemen, fire equipment, and property loss from fires.—The number of firemen in each of the cities is given in this table, classified as to whether they are regulars, call men, or volunteers. These numbers include the officers of the fire department in the different grades, as well as the actual firemen, but do not include messengers, janitors, etc. This table also goes quite fully into the equipment of the fire departments in the various cities, showing the number of steam, hand, and chemical engines, the number of hand fire extinguishers, fire boats, hook and ladder trucks, hose reels and hose wagons, fire hydrants, water towers, and horses. In addition to this information, data are also given as to the total length of ladders and hose belonging to the various fire departments of each of the cities investigated. The table closes with statements showing the number of fire alarms, the number of fires, and the total property loss from the same. The number of fire alarms does not include duplicate alarms sent in from different points, and a first and second alarm for a single fire has been considered one alarm. It should also be stated that two or more buildings burned as a result of one fire has been considered one fire.

Table IV.—Marriages and births.—During the former investigation into statistics of cities data relating to marriages and births were not secured. It was thought, however, that the subject was sufficiently important to warrant the Department in securing and publishing the figures relating thereto. The table shows the total number of marriages, the number of male and female births, the total births and births per 1,000 population, and the number of stillbirths. The figures showing the birth rate per 1,000 population are based on the population at the Twelfth United States Census, June 1, 1900, as

shown in Table I. In bringing the figures for the various cities into comparison it will be noted that in some cities the number of marriages is largely in excess of what might naturally be expected. This in some cases is accounted for by the fact that the city is located near the border of another State in which the marriage license laws are more exacting, and that many persons consequently repair to the city for the purpose of being married, in order to secure the benefit of the more liberal conditions offered there. The reverse of these conditions accounts in some cases for the small number of marriages in other cities.

Table V.—Deaths, by causes.—It was found during this investigation, by an examination of the various city reports, that in almost every city a different classification as to the cause of death was used in making the official statement of deaths. It was apparent that these classifications differing so widely could not be used, inasmuch as the value of the data concerning this feature of city supervision consists mainly in the comparison afforded as to the number of deaths from the same cause in each of the cities investigated. For this reason a uniform classification was adopted, very similar to the one in use last year, and every effort was made to follow the same strictly, necessitating in almost every case an entirely new compilation of the deaths from various causes in the various cities. To these figures as finally compiled the health officers in each of the cities gave their approval. An examination of the table will show the classification itself and the number of deaths (including those from premature birth) from each selected cause in the various cities. Consumption as here shown includes all forms of consumption of the lungs and throat, but consumption of the intestines, etc., is not included. Violence includes all deaths not attributable to disease, such as suicide, murder, manslaughter, homicide, accident, etc., and scarlet fever includes scarlatina. The other classifications as shown in the table require no special explanation, being quite clear in themselves. The proportionately large number of deaths in some of the Southern cities is undoubtedly accounted for by the fact that the population is largely made up of colored people, among whom the death rate is much higher than among the white population. While no classification of deaths has been made generally as between white and colored, for the reason that but very few cities keep records which would enable such classification, such distinction has been made for Charleston, S. C., in the following short table, which quite fully supports the statement just made. In this table the figures of total population used are from the returns of the Twelfth Census, but the figures for white and colored (the census figures not being yet available) are estimated, it being assumed that the relative numbers of each have remained the same as at the census of 1890.

DEATHS AND DEATH RATE PER 1,000 POPULATION, BY CAUSE AND COLOR,
CHARLESTON, S. C.

Cause of death.	White.		Colored.		Total.	
	Deaths.	Death rate per 1,000.	Deaths.	Death rate per 1,000.	Deaths.	Death rate per 1,000.
Consumption	42	1.73	223	7.08	265	4.75
Pneumonia	16	.66	81	2.57	97	1.74
Heart disease	28	1.15	60	1.90	88	1.58
Violence	32	1.32	101	3.20	133	2.38
Apoplexy	25	1.03	23	.73	48	.86
Diphtheria	1	.04	0	0	1	.02
Diarrheal diseases:						
Cholera infantum	13	.54	7	.22	20	.36
Other	43	1.77	150	4.76	193	3.46
Cancer	81	1.28	19	.60	50	.89
Bronchitis	8	.33	17	.54	25	.45
Meningitis	9	.37	16	.51	25	.45
Marasmus, etc	19	.78	59	1.87	78	1.40
Measles	3	.12	11	.35	14	.25
Nephritis	68	2.80	150	4.76	218	3.91
Old age	21	.86	30	.95	51	.91
Typhoid fever	19	.78	42	1.33	61	1.09
Malarial fever	11	.45	24	.76	35	.63
Scarlet fever	1	.04	0	0	1	.02
Hydrocephalus	0	0	4	.13	4	.07
Septicæmia	7	.29	6	.19	13	.23
Croup	0	0	0	0	0	0
Alcoholism	5	.21	0	0	5	.09
Whooping cough	6	.25	12	.38	18	.32
Premature birth	9	.37	20	.64	29	.52
All other	145	5.97	333	10.57	478	8.56
Total	562	23.14	1,388	44.04	1,950	34.94

Table VI.—Percentage of deaths from each specified cause.—This table is based on Table V, and shows for each city what percentage of the total deaths during the year was caused by consumption, what by pneumonia, what by heart disease, and what by each of the remaining causes enumerated in Table V.

Table VII.—Death rate per 1,000 population.—This table is based partly on Table V. The population of each city as estimated by the health officers, which furnishes the basis of the calculation as to the official death rate, is given in the first column of the table. This is followed by a column showing the official death rate of each city as calculated by the health officers of the same. The returns of the Twelfth United States Census, June 1, 1900, were not available until after the official death rates had been made, and in comparing the census returns of population for the various cities with the estimates of the health officers it was found that the actual count in many cases showed a population different from that used by the health officers in calculating the official death rate. The actual population June 1, 1900, is therefore brought forward from Table I, and immediately following this is given the death rate calculated on the basis of these figures. In some cases these do not differ greatly from the figures used by the health officers themselves. Stillbirths are not included in the calculation of death rates. As stated in connection with Table V, the high death rate of some Southern cities is explained by the fact that their population consists largely of colored people, among whom

the death rate is much higher than among whites, as shown by the short table for Charleston, S. C., preceding.

Table VIII.—Area of public parks, and of streets paved, by kind of pavement.—In this table is shown the area of all parks and gardens open for the free use of the public, whether owned by the municipality or by a private individual or corporation, and also the number of square yards of streets in each of the cities paved with cobblestones, granite blocks, bricks, wooden blocks, asphalt and asphalt blocks, macadam, and gravel. The number of square yards of all other kinds of pavement is aggregated in a single column, and this is followed by the total square yards of streets paved in each city and the square yards of streets unpaved.

Table IX.—Care of streets, disposal of garbage, and food and sanitary inspection.—This table deals with the provision made by each of the cities for the care of its streets and the disposal of garbage. The table shows whether the streets are swept by hand, by machine, or by both hand and machine, and the number of square yards of streets swept per week. The figures given show the total amount of sweeping done per week, measured in square yards, and do not indicate therefore the total area swept, which would in most cases be considerably less, inasmuch as many of the streets are swept more than once a week. This is followed by a column showing the average number of persons employed in sweeping and sprinkling the streets. The table also shows the number of tons of garbage sold, burned, or otherwise disposed of in the cities which attend to this matter themselves, together with the average number of persons employed in such removal. In most cases, however, it was found that this matter was cared for by the householders or by contract, and consequently no figures could be obtained as to the quantity disposed of. Garbage is classified in this table as ashes, swill and kitchen refuse, and dead animals and other refuse. The last two columns in this table show the number of food and sanitary inspectors employed by each of the cities.

Table X.—Public schools and libraries.—This table shows the number of city schools, classified as to whether they are high schools or other, and the number of teachers and pupils in each of the two classes. The average attendance in high and other schools is next shown. In collecting the facts for this table a series of grades was regarded as a school, and the facts given include all public free schools—day schools, night schools, kindergartens, manual-training schools, art schools, etc. The low average daily attendance in a few of the cities is accounted for by the fact that there are several night schools having a large membership, the attendance being very irregular, and the schools being in operation only a few months during the year. The second part of this table is devoted to a consideration of the facts relating to public libraries under municipal or other owner-

ship and control, together with information as to the number of volumes in the same, the number of volumes withdrawn for home use, and the number withdrawn for use in the reading rooms of the library during the period covered by the report. In last year's report were given only libraries under municipal ownership and control. It was determined, however, this year to include in the data relating to this subject all of the libraries that are open to the public or a specified class of the public, except church and Sunday-school libraries and libraries conducted wholly for profit. The table therefore shows the facts separately for these two classes of libraries, followed by a total which includes both.

Table XI.—Charities: Almshouses, charitable homes, etc., orphan asylums, and hospitals.—In the report for last year on this subject data were given for municipal institutions only; that is, those which were supported or controlled by the municipality itself. In many of the cities which were included in the report, however, institutions of a similar character were found under the control of and supported by the town, county, or State, or by private contributions. In some cases such institutions existed in cities which did not themselves provide such aid. In most cases these private or semiprivate institutions were open to those unable to support themselves, or secure proper medical aid and other attention. In many cases private institutions were found in which free attention was given to those needing it, while in some instances a part of the support of each institution was contributed by the city as a condition to furnishing the necessary attention to its poor. It was determined, therefore, in view of the public service rendered by these institutions, to secure data relating to them similar to that secured for the last report relating to strictly municipal institutions and publish the same in connection with those data. This table, therefore, contains the data not only as to those institutions owned and controlled by the city, but also those owned and controlled by the county, town, or State, or by private enterprises, such as churches, benevolent associations, etc. It has been the purpose of the Department to include all those institutions which admit the general public or a specified class of the public either free or partially free. The table shows, then, the number of almshouses, charitable homes, etc., and orphan asylums with the average number of inmates, and the number of hospitals with the total number of patients treated during the year, subdivided as to whether under municipal or other ownership and control. The column relating to the number of hospitals includes in some instances smallpox hospitals or pest-houses, which are not strictly charitable institutions, but are operated by the cities for the protection of the general public health. In some cases it was found difficult to classify almshouses, charitable homes, etc., and orphan asylums, as many institutions were a combination of

both. The best classification possible, however, was made after due inquiry as to the work of the various institutions. It should be said also, that in some instances homes for aged people, refuges for fallen women, etc., have been included under charitable homes, etc., and grouped with almshouses, and that many of the institutions classified as orphan asylums admit children not orphans. It was found also, that many of the almshouses and orphan asylums had hospital wards in connection with them. This, however, has not been taken into account, and they have been classified respectively as almshouses, charitable homes, etc., or orphan asylums. In some cases hospitals include insane asylums, while the number of patients treated in hospitals includes emergency cases which receive medical aid only.

Table XII.—Cost of water, gas, and electric-light plants owned and operated by cities.—In this table it is shown whether the waterworks, gas works, and electric-light plants in the various cities are owned and operated by the municipality. Where these public utilities are municipally owned and operated, further data are given as to the year in which they were built or acquired by the cities, and the cost of the same. The figures for cost represent the cost up to the end of the fiscal year covered by the report, and include amounts expended for extensions, etc., in addition to the original cost of building and equipping the plants.

Table XIII.—Debt, basis of assessment, assessed valuation of property, and taxation.—This table shows first the amount of the bonded, the floating, and the total debt of the cities included in the report. In this classification temporary loans, unpaid warrants, etc., have been regarded as a floating debt. The data as to debt are followed by those as to the amount of the sinking fund of the various cities, which, deducted from the preceding column showing the total debt, furnishes the figures for the next column representing the net debt of each of the cities. This is followed by a statement as to the legal borrowing limit. In several cities it was found that the bonded indebtedness as given in the reports of the cities did not include some special bonds, such as school, park, or waterworks bonds, or bonds issued for street or sewer construction, etc. They were omitted by the city officials because they were not considered a city debt proper, they having been issued for one or more of the special purposes named and charged, in some instances, against the property along the street or in the locality in which the expenditures were made. In such cases the city usually acts as an agent through a board or commission in issuing and redeeming the bonds, but disclaims all responsibility for their payment. As most cities include all such bonds in their statements of indebtedness it has been deemed proper for purposes of comparison to include them in these cases also.

The fact should be noted in connection with this table that in some

cases the debt as here given does not represent absolutely all of the public obligations of the property within the limits of the city. In certain cases where it has been desired to make improvements for the benefit of a territory larger than that of the city, the State legislature has provided for the formation of a board or commission, and for borrowing money for carrying out the desired improvements. This borrowed money represents an obligation, not of the cities as such, but of the board or commission, although interest and principal as well as all expenses of maintenance and operation must be met by taxation against the property within the limits of the territory benefited. This method has in many cases been employed because the debt limit fixed by the State legislature prevented the necessary borrowing on the part of the city directly, and as it is desired to retain a low debt limit, specific permission from the legislature is required for each issue of bonds in excess of that limit. Well known cases of this sort are Chicago, with its drainage canal, and Boston with its metropolitan park, sewer, and water commissions. In such cases as these no attempt has been made to apportion to the cities involved the proper proportion of debt chargeable in each instance as it was regarded as impracticable. Such definite information, however, as was available has been presented in the form of footnotes to the table. With regard to the city's share of the county and State debt the same principle has been followed.

The conditions in Washington are somewhat peculiar. Being the seat of the Federal Government and the site of the vast properties necessary to its central administration, Congress, which is the law-making body of the city, has established the rule that one-half the municipal expenses shall be paid by the Federal Government and one-half raised by taxation. The act providing a permanent form of government for the District of Columbia, approved June 11, 1878, specified that, "To the extent to which Congress shall approve of said estimates, [of the annual expenses of government for the District of Columbia] Congress shall appropriate the amount of fifty per centum thereof; and the remaining fifty per centum of such approved estimates shall be levied and assessed upon the taxable property and privileges in said District of Columbia other than the property of the United States and of the District of Columbia." The principle laid down in the foregoing act has, with very few exceptions, been followed by Congress in making the appropriations for the expenses of the District of Columbia. In any study of the financial statistics of the city of Washington, whether in this or subsequent tables, this peculiarity should be borne in mind.

Two additional columns show the basis of assessment, represented in per cent of the full value of real and personal property. While the legal basis of assessment is as stated for each city, it has been found in some cities that in practice the basis adopted is a much lower percent-

age. Then follow three columns showing the assessed valuation of the real, personal, and the total property in each of the cities considered, while the remaining columns of the table relate to the tax rates for various purposes levied on such property. In most cases a statement was secured as to the rate of tax levied per \$1,000 of assessed valuation by or for the State, the county, and the city, and for other purposes. The value of the data subdivided in this manner will be seen at once. Owing to the lack of space in this and the five tables following, the cents in all of the amounts have been discarded and the nearest amount in dollars used.

Table XIV.—Income from all sources.—In this table is shown the amount of the income, during the fiscal year covered by the report, of the various cities which come within the scope of the investigation. In the report of last year the effort was made to subdivide these items as to whether they were ordinary or extraordinary receipts. No such effort is made in this report, owing to the difficulties encountered in making the same and the questionable value of such subdivision. The receipts are classified as cash on hand at the beginning of the fiscal year; the amounts received during the year from the property tax; from liquor licenses; from other licenses and fees; from fines; from franchises; from docks, wharves, ferries, bridges, markets, cemeteries, etc.; from waterworks; from gas works; from electric-light plants; from special assessments; from loans; from all other sources, and the total income from all sources combined. The cash on hand at the beginning of the fiscal year as shown in this table does not in any case include the cash in the sinking fund.

Table XV.—Expenditures for construction and other capital outlay.—This table, together with Table XVI, deals with the expenditures during the fiscal year covered by the report. Table XV deals especially with those for construction and for the acquisition of property of a permanent nature, and for other capital outlay. The items for which separate amounts are shown in this table are: Police department; police courts, jails, workhouses, reformatories, etc.; fire department; health department; hospitals, asylums, almshouses, and other charities; schools; libraries, art galleries, museums, etc.; parks and gardens; streets; sewers; waterworks; gas works; electric-light plants; docks, wharves, ferries, bridges, markets, cemeteries, etc.; and liquidation of debt. The total of these items concludes the table.

Table XVI.—Expenditures for maintenance and operation.—This table is very similar in form to the preceding one, and shows the expenditures for the maintenance of all principal departments of city work, together with total expenditures for maintenance and operation.

Table XVII.—Summary of income and expenditures.—This table summarizes the results of Tables XIV, XV, and XVI, bringing into one presentation the total of income and expenditures shown in those

tables. A column showing cash on hand at the end of the fiscal year is also given.

Table XVIII.—Assets.—In the former report of the Department on this subject an effort was made to secure a statement as to the total assets of the various cities included. Most of the data given there were secured by correspondence and with no opportunity for a personal examination by the agents of the Department of the various items of assets and the proper classification of the same. The importance of the statement as regards this subject, however, was recognized, and in the report for the present year the effort was made to secure detailed information in regard to the same. This table contains the results of the investigation, showing the estimated value of all property, real and personal, owned by the city at the end of its fiscal year, including cash in the treasury; uncollected taxes; cash and bonds in the sinking fund; and all lands, buildings, apparatus, and furniture belonging to it, for whatever purpose used, as the city hall, police and fire departments, schools, libraries, art galleries, museums, parks, jails, workhouses, reformatories, hospitals, asylums, almshouses, docks, wharves, ferries, bridges, markets, cemeteries, bathhouses, bathing beaches, waterworks, gas works, electric-light plants, etc. The value of streets and sewers, however, has not been included. Investigation revealed the fact that but few cities keep any record of the value of city property, hence the figures in this table are largely estimates based on the best judgment of the various city officials who furnished information for the several tables.

Table XIX.—Per capita debt, assessed valuation of property, and expenditures for maintenance.—This is the last table of the series, and shows per capita the net debt, assessed valuation of real and personal property, and certain of the detailed expenditures for maintenance, together with the total for the same. Among these detailed expenditures are shown the per capita expenditures for maintenance of the police department, etc., the fire department, schools, street lighting, and other street expenditures. The per capita expenditures for all other items of maintenance are combined in the next column, and the column showing the total per capita expenditure for maintenance is the final one in the table.

TABLE I.—POPULATION, AREA, PERIOD COVERED, ETC.

Marginal number.	Cities.	Incorporated.	Population at Twelfth Census, June 1, 1900.	Area (acres).	Dates of ending of years covered by investigation.
1	New York, N. Y.	a1614	3,437,202	b197,192.00	Charities, various dates from Sept. 30, 1899, to May 15, 1900; schools, July 31, 1899; libraries, various dates from June 30, 1899, to Apr. 1, 1900; all other departments, Dec. 31, 1899.
2	Chicago, Ill.	1837	1,698,575	122,240.00	Schools, June 30, 1899; libraries, June 1, 1899; all other departments, Dec. 31, 1899.
3	Philadelphia, Pa.	c1701	1,293,697	84,933.12	Dec. 31, 1899.
4	St. Louis, Mo.	1822	575,238	39,276.80	Health department, Dec. 31, 1899; schools and school-fund items, June 30, 1899; financial statements, Apr. 9, 1900; all other departments, Mar. 31, 1900.
5	Boston, Mass.	1822	560,892	60,661.00	Police department, Nov. 30, 1899; health department, Dec. 31, 1899; charities, various dates from July 15, 1899, to May 13, 1900; all other departments, Jan. 31, 1900.
6	Baltimore, Md.	d1797	508,957	24,171.52	Libraries, various dates from June 1, 1899, to Dec. 31, 1899; all other departments, Dec. 31, 1899.
7	Cleveland, Ohio.	1836	381,768	21,190.00	Schools and libraries, Aug. 31, 1899; all other departments, Dec. 31, 1899.
8	Buffalo, N. Y.	1832	352,219	25,343.57	Police, health, and street departments, Dec. 31, 1899; fire department and financial statements, June 30, 1899; schools, June 23, 1899; charities, various dates from Sept. 30, 1899, to Jan. 1, 1900; libraries, various dates from June 30, 1899, to Mar. 27, 1900.
9	San Francisco, Cal.	1850	342,782	27,000.00	June 30, 1899.
10	Cincinnati, Ohio.	1819	325,902	20,860.00	Schools and school-fund items, Aug. 31, 1899; libraries and library-fund items, June 30, 1899; all other departments, Dec. 31, 1899.
11	Pittsburg, Pa.	1816	321,616	19,418.17	Health department, Dec. 31, 1899; schools, June 3, 1899; school-fund items, Jan. 31, 1899; all other departments, Jan. 31, 1900.
12	New Orleans, La.	e1805	287,104	125,600.00	Charities, Sept. 30, 1899; all other departments, Dec. 31, 1899.
13	Detroit, Mich.	1824	285,704	18,560.00	Liquor licenses, Apr. 30, 1899; charities, libraries, and public works, Dec. 31, 1899; all other departments, June 30, 1899.
14	Milwaukee, Wis.	1846	285,315	13,624.82	Police department, Mar. 31, 1900; schools, Aug. 31, 1899; all other departments, Dec. 31, 1899.
15	Washington, D. C.	1791	278,718	44,820.00	Charities and libraries, various dates from June 30, 1899, to Dec. 31, 1899; all other departments, June 30, 1899.
16	Newark, N. J.	1836	246,070	11,840.00	Dec. 31, 1899.
17	Jersey City, N. J.	f1838	206,433	68,320.00	Nov. 30, 1899.
18	Louisville, Ky.	1828	204,731	12,800.00	Schools, June 30, 1899; school-fund items, Dec. 31, 1899; park-fund items, Nov. 30, 1899; public works and sinking-fund items, Dec. 31, 1899; all other departments, Aug. 31, 1899.
19	Minneapolis, Minn.	1867	202,718	34,105.60	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
20	Providence, R. I.	1832	175,597	11,705.60	Police, fire, health, and charities departments, Dec. 31, 1899; schools, June 30, 1899; all other departments, Sept. 30, 1899.
21	Indianapolis, Ind.	1847	169,164	17,792.00	Schools and libraries, and school and library fund items, June 30, 1899; all other departments, Dec. 31, 1899.
22	Kansas City, Mo.	g1853	163,752	16,640.00	Health department, Dec. 31, 1899; schools and libraries, June 30, 1899; all other departments, Apr. 16, 1900.

a Reincorporated in 1686, 1781, 1870, and 1898.

b Not including water area, not reported.

c Reincorporated in 1789 and 1854.

d Reincorporated in 1898.

e Reincorporated in 1836, 1852, 1856, 1870, and 1882.

f Reincorporated in 1852.

g Reincorporated in 1889.

TABLE I.—POPULATION, AREA, PERIOD COVERED, ETC.—Continued.

Marginal number.	Cities.	Incorporated.	Population at Twelfth Census, June 1, 1900.	Area (acres).	Dates of ending of years covered by investigation.
23	St. Paul, Minn.....	1854	163,632	35,483.30	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
24	Rochester, N. Y.....	1834	162,435	11,635.00	Charities, various dates from Sept. 30, 1899, to Dec. 30, 1899; schools, June 23, 1899; libraries, various dates from Oct. 1, 1899, to Mar. 12, 1900; all other departments, Dec. 29, 1899.
25	Denver, Colo.....	1861	133,859	31,485.00	Schools, May 5, 1899; all other departments, Dec. 31, 1899.
26	Toledo, Ohio.....	a 1837	131,822	18,284.80	Fire department, Apr. 1, 1900; schools, Sept. 1, 1899; all other departments, Dec. 31, 1899.
27	Allegheny, Pa.....	1840	129,896	5,040.00	Schools and school-fund items, June 1, 1899; all other departments, Feb. 28, 1900.
28	Columbus, Ohio.....	1834	125,560	10,400.00	Schools, Aug. 31, 1899; all other departments, Dec. 31, 1899.
29	Worcester, Mass.....	1848	118,421	21,772.80	Nov. 30, 1899.
30	Syracuse, N. Y.....	1847	108,374	10,041.00	Schools and school-fund items, July 31, 1899; libraries, public works, and financial statements, June 30, 1899, all other departments, Dec. 31, 1899.
31	New Haven, Conn.....	1784	108,027	14,340.00	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
32	Paterson, N. J.....	1851	105,171	5,357.00	Charities, various dates from Dec. 31, 1899, to Mar. 20, 1900; all other departments, Mar. 20, 1900.
33	Fall River, Mass.....	1854	104,863	26,240.00	Police department, Nov. 30, 1899; all other departments, Dec. 31, 1899.
34	St. Joseph, Mo.....	b 1851	102,979	6,400.00	Fires and fire alarms, Dec. 31, 1899; schools, June 30, 1899; library, Apr. 30, 1900; all other departments, Apr. 16, 1900.
35	Omaha, Nebr.....	1857	102,555	15,680.00	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
36	Los Angeles, Cal.....	1850	102,479	c 27,774.49	Schools, June 30, 1899; all other departments, Nov. 30, 1899.
37	Memphis, Tenn.....	1827	102,320	10,240.00	Schools and school-fund items, June 30, 1899; all other departments, Dec. 31, 1899.
38	Scranton, Pa.....	1866	102,026	12,198.40	Fire and health departments, charities, and libraries, Dec. 31, 1899; schools, June 30, 1899; all other departments, Apr. 2, 1900.
39	Lowell, Mass.....	1836	94,969	7,932.00	Police and fire departments, May 31, 1899; schools, June 23, 1899; all other departments, Dec. 31, 1899.
40	Albany, N. Y.....	1686	94,151	6,867.00	Schools, Aug. 31, 1899; school-fund items, Oct. 30, 1899; financial statements, Oct. 31, 1899; all other departments, Dec. 31, 1899.
41	Cambridge, Mass.....	1846	91,886	4,182.48	Schools, Dec. 31, 1899; libraries, various dates from June 30, 1899, to Oct. 26, 1899; charities, various dates from Oct. 1, 1899, to Dec. 31, 1899; all other departments, Nov. 30, 1899.
42	Portland, Oreg.....	1851	90,426	25,600.00	Schools, June 30, 1899; school-fund items, Jan. 15, 1900; all other departments, Dec. 31, 1899.
43	Atlanta, Ga.....	1847	89,872	7,040.00	Dec. 31, 1899.
44	Grand Rapids, Mich..	1850	87,565	11,200.00	Schools and libraries, Sept. 1, 1899; school and library fund items, Sept. 26, 1899; all other departments, Apr. 30, 1900.
45	Dayton, Ohio.....	1840	85,333	6,720.00	Health department, Dec. 31, 1899; schools and libraries, Aug. 31, 1899; all other departments, Feb. 28, 1900.
46	Richmond, Va.....	1742	85,060	3,526.00	Charities, various dates from May 31, 1899, to Apr. 1, 1900; schools, July 31, 1899; financial statements, Jan. 31, 1900; all other departments, Dec. 31, 1899.
47	Nashville, Tenn.....	1806	80,865	5,990.40	Schools and school-fund items, June 30, 1899; all other departments, Dec. 31, 1899.

a Reincorporated in 1845, 1846, and 1851.

b Reincorporated in 1885.

c Not including a park of 3,015 acres, located outside city limits.

TABLE I.—POPULATION, AREA, PERIOD COVERED, ETC.—Continued.

Marginal number.	Cities.	Incorporated.	Population at Twelfth Census, June 1, 1900.	Area (acres).	Dates of ending of years covered by investigation.
48	Seattle, Wash.....	1869	80,671	30,720.00	Schools and school-fund items, June 30, 1899; all other departments, Dec. 31, 1899.
49	Hartford, Conn.....	1784	79,850	11,065.00	Health department and public works, Feb. 28, 1900; streets, Dec. 31, 1899; parks, Apr. 30, 1900; schools, July 14, 1899; all other departments, Mar. 31, 1900.
50	Reading, Pa.....	1847	78,961	3,965.00	Police, fire, and health departments, Dec. 31, 1899; charities, various dates from Oct. 1, 1899, to Apr. 1, 1900; schools and school-fund items, Feb. 23, 1900; all other departments, Apr. 2, 1900.
51	Wilmington, Del.....	1832	76,508	6,519.00	Fire department, May 15, 1899; health department and public works, Dec. 31, 1899; libraries, Feb. 28, 1900; street department, Jan. 31, 1900; all other departments, June 30, 1899.
52	Camden, N. J.....	1828	75,935	5,600.00	Jan. 31, 1900.
53	Trenton, N. J.....	1792	73,307	3,165.50	Health department, June 30, 1899; libraries, Jan. 1, 1900; all other departments, Feb. 28, 1900.
54	Bridgeport, Conn.....	1836	70,996	8,576.00	Fire alarms, fires, and property loss, and health department, Dec. 31, 1899; charities, various dates from Sept. 30, 1899, to Apr. 30, 1900; schools, July 14, 1899; libraries, May 31, 1900; all other departments, Mar. 31, 1900.
55	Lynn, Mass.....	1850	68,513	7,251.20	Financial statements, Dec. 20, 1899; all other departments, Dec. 31, 1899.
56	Oakland, Cal.....	1854	66,960	20,480.00	June 30, 1899.
57	Lawrence, Mass.....	1853	62,559	4,577.00	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
58	New Bedford, Mass.....	1847	62,442	12,373.00	Police and fire departments, Nov. 30, 1899; schools, June 30, 1899; all other departments, Dec. 4, 1899.
59	Des Moines, Iowa.....	1857	62,139	34,560.00	Health department and charities, Jan. 1, 1900; schools, June 2, 1899; school-fund items, Sept. 1, 1899; libraries, Dec. 31, 1899; all other departments, Mar. 31, 1900.
60	Springfield, Mass.....	1852	62,059	24,661.30	Police department, Nov. 30, 1899; schools, June 30, 1899; all other departments, Dec. 10, 1899.
61	Somerville, Mass.....	1872	61,643	2,700.80	Dec. 31, 1899.
62	Troy, N. Y.....	1816	60,651	3,368.00	Dec. 31, 1899.
63	Hoboken, N. J.....	1855	59,364	960.00	Police department, Apr. 30, 1899; health department and charities, Dec. 31, 1899; schools, June 30, 1899; all other departments, May 1, 1899.
64	Evansville, Ind.....	1847	59,007	3,840.00	Police and health departments, Mar. 31, 1900; fire department, Apr. 9, 1900; schools, July 31, 1899; all other departments, Aug. 31, 1899.
65	Manchester, N. H.....	1846	56,987	21,700.00	Schools, June 24, 1899; all other departments, Dec. 31, 1899.
66	Utica, N. Y.....	1832	56,383	6,400.00	Police and fire departments, Mar. 31, 1900; health and street departments, Dec. 31, 1899; schools, July 31, 1899; charities, various dates from Sept. 30, 1899, to Dec. 31, 1899; libraries, June 30, 1899; financial statements, Oct. 24, 1899.
67	Peoria, Ill.....	^a 1845	56,100	3,290.00	Schools, libraries, and park, school, and library fund items, June 1, 1899; all other departments, Dec. 31, 1899.
68	Charleston, S. C.....	1783	55,807	3,276.80	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
69	Savannah, Ga.....	1789	54,244	3,264.00	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
70	Salt Lake City, Utah.....	1860	53,531	32,896.00	Schools, June 30, 1899; libraries, May 31, 1899; all other departments, Dec. 31, 1899.
71	San Antonio, Tex.....	^b 1842	53,321	23,040.00	Schools, Aug. 31, 1899; all other departments, May 31, 1899.

^a Reincorporated in 1892.^b Reincorporated in 1870.

TABLE I.—POPULATION, AREA, PERIOD COVERED, ETC.—Continued.

Marginal number.	Cities.	Incorporated.	Population at Twelfth Census, June 1, 1900.	Area (acres).	Dates of ending of years covered by investigation.
72	Duluth, Minn.	a 1870	52,969	41,000.00	Marriages, charities, and libraries, Dec. 31, 1899; health department, Feb. 28, 1900; all other departments, Feb. 18, 1900.
73	Erie, Pa.	1851	52,733	4,426.69	Health department, public works, and water-fund items, Dec. 31, 1899; schools and libraries, and school and library fund items, June 5, 1899; all other departments, Apr. 2, 1899.
74	Elizabeth, N. J.	1855	52,130	5,760.00	Libraries, Dec. 1, 1899; all other departments, June 30, 1899.
75	Wilkesbarre, Pa.	1871	51,721	3,109.12	Fire, health, and street departments, Jan. 1, 1900; schools, June 6, 1899; all other departments, Apr. 1, 1900.
76	Kansas City, Kans. ...	1886	51,418	9,600.00	Schools, June 30, 1899; all other departments, Mar. 31, 1900.
77	Harrisburg, Pa.	1860	50,167	3,734.46	Schools, June 1, 1899; all other departments, Apr. 2, 1900.
78	Portland, Me.	1832	50,145	11,680.00	Police department, Feb. 28, 1900; all other departments, Mar. 31, 1900.
79	Yonkers, N. Y.	1871	47,931	13,400.00	Charities, Sept. 30, 1899; schools, Aug. 31, 1899; libraries, Dec. 31, 1899; public works, Nov. 30, 1899; all other departments, Feb. 28, 1900.
80	Norfolk, Va.	1845	46,624	2,240.00	Schools, July 31, 1899; all other departments, June 30, 1899.
81	Waterbury, Conn.	1853	45,859	2,400.00	Charities, various dates, from Dec. 10, 1899, to Dec. 31, 1899; schools, July 1, 1899; library, Sept. 1, 1899; all other departments, Dec. 31, 1899.
82	Holyoke, Mass.	1873	45,712	10,464.00	Schools, June 30, 1899; public works and water-fund items, Dec. 30, 1899; all other departments, Nov. 30, 1899.
83	Fort Wayne, Ind.	b 1840	45,115	3,300.00	Schools and libraries, July 31, 1899; all other departments, Dec. 31, 1899.
84	Youngstown, Ohio.	1868	44,885	6,144.00	Police, fire, and health departments, Dec. 31, 1899; street department, Feb. 28, 1900; schools, Aug. 31, 1899; public works, Mar. 31, 1900; all other departments, Mar. 15, 1900.
85	Houston, Tex.	1837	44,633	5,760.00	Police department, Apr. 30, 1900; all other departments, Dec. 31, 1899.
86	Covington, Ky.	1834	42,938	1,495.00	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
87	Akron, Ohio.	1836	42,728	4,672.00	Police department, Mar. 20, 1900; fire department, Dec. 31, 1899; health department, Feb. 28, 1900; schools, Aug. 31, 1899; libraries, May 31, 1899; all other departments, Mar. 19, 1900.
88	Dallas, Tex.	1856	42,638	5,760.00	Schools, June 30, 1899; all other departments, Apr. 30, 1900.
89	Saginaw, Mich.	c 1838	42,345	8,251.20	Births, Dec. 31, 1899; marriages and charities, Dec. 31, 1899; all other departments, June 30, 1899.
90	Lancaster, Pa.	1818	41,459	2,560.00	Health department, Dec. 31, 1899; schools and school-fund items, June 5, 1899; financial statements, May 1, 1900; all other departments, Mar. 1, 1900.
91	Lincoln, Nebr.	1869	40,169	5,696.00	Schools, July 1, 1899; libraries, May 31, 1899; all other departments, Apr. 1, 1900.
92	Brockton, Mass.	1881	40,063	13,824.00	Nov. 30, 1899.
93	Binghamton, N. Y.	1867	39,647	6,400.00	Police and health departments, public works, and water-fund items, Dec. 31, 1899; fire department, Jan. 31, 1900; schools, July 31, 1899; libraries, various dates, from Aug. 31, 1899, to Dec. 31, 1899; all other departments, July 1, 1899.
94	Augusta, Ga.	1796	39,441	2,560.00	Schools, June 15, 1899; all other departments, Dec. 31, 1899.
95	Pawtucket, R. I.	1886	39,231	5,721.60	Health department, Dec. 31, 1899; schools, June 30, 1899; all other departments, Sept. 30, 1899.

a Reincorporated in 1887.

b Reincorporated in 1893.

c Reincorporated in 1857 and 1890.

TABLE I.—POPULATION, AREA, PERIOD COVERED, ETC.—Continued.

Marginal number.	Cities.	Incorporated.	Population at Twelfth Census, June 1, 1900.	Area (acres).	Dates of ending of years covered by investigation.
96	Altoona, Pa	1868	38,975	1,589.99	Health department, Dec. 31, 1899; schools and school-fund items, June 6, 1899; all other departments, Apr. 1, 1900.
97	Wheeling, W. Va.	1806	38,878	2,745.00	Schools, July 31, 1899; libraries, Mar. 31, 1900; all other departments, Dec. 31, 1899.
98	Mobile, Ala.	a 1819	38,469	5,440.00	Police and fire departments, Mar. 15, 1900; health department, Dec. 31, 1899; schools, Aug. 31, 1899; all other departments, Mar. 19, 1900.
99	Birmingham, Ala.	1871	38,415	4,053.33	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
100	Little Rock, Ark.	1835	38,307	7,300.00	Schools and school-fund items, June 30, 1899; all other departments, Dec. 31, 1899.
101	Springfield, Ohio	1850	38,253	5,900.00	Schools, June 23, 1899; school-fund items, Aug. 31, 1899; libraries, Apr. 30, 1899; public works, Mar. 31, 1900; all other departments, Mar. 2, 1900.
102	Galveston, Tex.	1839	37,789	b 8,134.00	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
103	Tacoma, Wash.	1888	37,714	18,560.00	Schools and school-fund items, June 30, 1899; all other departments, Dec. 31, 1899.
104	Haverhill, Mass.	1870	37,175	20,300.00	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
105	Spokane, Wash.	1881	36,848	12,960.00	Police, schools, libraries, and financial statements, June 30, 1899; all other departments, Dec. 31, 1899.
106	Terre Haute, Ind.	c 1853	36,673	3,500.00	Police department, Feb. 23, 1900; schools, July 31, 1899; all other departments, Dec. 31, 1899.
107	Dubuque, Iowa.	1837	36,297	7,680.00	Schools, June 21, 1899; school-fund items, Jan. 31, 1900; all other departments, Feb. 23, 1900.
108	Quincy, Ill.	1840	36,252	4,000.00	Schools and school-fund items, July 31, 1899; libraries and library-fund items, May 31, 1899; sinking fund and bond-interest fund, Feb. 16, 1900; all other departments, Apr. 30, 1900.
109	South Bend, Ind.	1865	35,999	3,827.00	Schools and libraries and school and library fund items, July 31, 1899; all other departments, Dec. 31, 1899.
110	Salem, Mass.	1836	35,956	4,600.00	Schools, June 30, 1899; all other departments, Nov. 30, 1899.
111	Johnstown, Pa.	1889	35,936	2,625.00	Police, fire, and health departments, Dec. 31, 1899; schools and school-fund items, June 6, 1899; all other departments, Apr. 2, 1900.
112	Elmira, N. Y.	1864	35,672	4,747.00	Police department, Jan. 31, 1900; health department, Dec. 31, 1899; charities, various dates, from Oct. 1, 1899, to Dec. 31, 1899; schools, July 31, 1899; all other departments, Feb. 5, 1899.
113	Allentown, Pa.	1838	35,416	2,011.27	Police, fire, health, and street departments, Apr. 2, 1900; schools and school-fund items, June 30, 1899; all other departments, Dec. 31, 1899.
114	Davenport, Iowa.	1851	35,254	5,052.00	Schools, June 23, 1899; school-fund items, Feb. 12, 1900; all other departments, Feb. 23, 1900.
115	McKeesport, Pa.	1890	34,227	2,800.00	Health department and public works, Dec. 31, 1899; schools, June 5, 1899; all other departments, Apr. 2, 1900.
116	Springfield, Ill.	1840	34,159	3,840.00	Schools and school-fund items, Aug. 31, 1899; all other departments, Feb. 23, 1900.
117	Chelsea, Mass.	1857	34,072	1,441.00	Schools, June 30, 1899; all other departments, Dec. 31, 1899.
118	Malden, Mass.	1881	33,664	3,072.00	Dec. 31, 1899.
119	Topeka, Kans.	1857	33,608	3,962.00	Schools, June 30, 1899; libraries and charities, Dec. 31, 1899; all other departments, Mar. 31, 1900.

a Reincorporated in 1879 and 1897.

b Including 4,000 acres, area of Pelican Island and Flats.

c Reincorporated in 1899.

TABLE I.—POPULATION, AREA, PERIOD COVERED, ETC.—Concluded.

Marginal number.	Cities.	Incorporated.	Population at Twelfth Census, June 1, 1900.	Area (acres).	Dates of ending of years covered by investigation.
120	Sioux City, Iowa	1857	33, 111	30, 720. 00	Health department, May 1, 1900; schools, June 9, 1899; school-fund items, Feb. 20, 1900; libraries, Jan. 1, 1900; all other departments, Mar. 31, 1900.
121	Knoxville, Tenn.	1816	32, 637	2, 600. 00	Schools, June 30, 1899; all other departments, Jan. 22, 1900.
122	Chattanooga, Tenn.	a 1839	32, 490	2, 560. 00	Police and fire departments, Sept. 30, 1899; street department, Mar. 27, 1900; schools, June 30, 1899; all other departments, Dec. 31, 1899.
123	Superior, Wis.	1899	31, 091	24, 320. 00	Police department, Apr. 30, 1900; marriages and charities, Dec. 31, 1899; schools and libraries, June 30, 1899; all other departments, Sept. 30, 1899.
124	Rockford, Ill.	1852	31, 051	5, 184. 00	Schools, June 30, 1899; libraries, June 1, 1899; all other departments, Dec. 31, 1899.
125	Taunton, Mass.	1864	31, 036	32, 000. 00	Schools, Dec. 31, 1899; all other departments, Nov. 30, 1899.
126	Joliet, Ill.	1852	30, 720	3, 010. 00	Apr. 30, 1900.
127	Canton, Ohio	1854	30, 667	4, 350. 00	Fire and health departments, charities, and public works, Feb. 28, 1900; schools, Aug. 31, 1899; libraries, Dec. 31, 1899; all other departments, Mar. 19, 1900.
128	Butte, Mont.	1879	30, 470	1, 350. 00	Schools, Aug. 31, 1899; libraries, Mar. 31, 1900; all other departments, Apr. 30, 1900.
129	Auburn, N. Y.	1848	30, 345	5, 760. 00	Schools and school-fund items, July 31, 1899; charities, Oct. 31, 1899; all other departments, Dec. 31, 1899.

a Reincorporated in 1854.

TABLE II.—POLICE, RETAIL LIQUOR SALOONS, AND ARRESTS, BY CAUSES.

[In this table drunkenness includes "common drunk," "drunk and disorderly," and all cases where drunkenness in any form was the primary cause of arrest; disturbing the peace includes all cases of disorderly conduct not attributable to drunkenness; assault and battery includes all cases of assault; vagrancy includes arrests of beggars, tramps, loafers, loiterers, and all persons without an apparent means of support; housebreaking includes burglary and all cases of breaking and entering; and larceny includes pocket picking, robbery, and all cases of theft.]

Marginal number.	Cities.	Police-men	Li-censed retail liquor sa-loons.	Arrests for—								Total of-fenses.
				Drun-keness.	Dis-turbing the peace	As-sault and bat-tery.	Hom-icide.	Va-gran-cy.	House-break-ing.	Lar-ceny.	All other of-fenses.	
1	New York, N. Y.	7, 637	10, 832	44, 013	30, 856	9, 118	406	6, 139	1, 333	9, 342	37, 669	138, 875
2	Chicago, Ill. (a)	3, 085	6, 460	640, 279	(c)	4, 128	114	502	1, 609	5, 148	20, 134	71, 914
3	Philadelphia, Pa.	2, 372	1, 709	28, 698	8, 154	3, 206	22	5, 178	106	3, 404	13, 417	62, 185
4	St. Louis, Mo.	1, 255	2, 060	3, 974	7, 113	111	65	656	370	904	11, 227	24, 420
5	Boston, Mass.	1, 243	799	23, 896	170	2, 753	23	3, 104	675	2, 719	6, 420	39, 760
6	Baltimore, Md.	820	1, 988	3, 819	10, 179	4, 302	23	288	253	2, 081	7, 290	29, 335
7	Cleveland, Ohio.	d 355	1, 888	7, 636	302	894	8	180	21	926	5, 757	15, 674
8	Buffalo, N. Y.	663	1, 510	9, 971	4, 431	825	10	2, 643	328	1, 957	3, 173	23, 338
9	San Francisco, Cal.	589	3, 007	12, 827	1, 998	1, 375	38	3, 272	289	1, 075	6, 895	27, 769
10	Cincinnati, Ohio.	525	1, 727	1, 988	1, 358	560	13	2, 394	11	734	5, 802	12, 860
11	Pittsburg, Pa.	348	518	4, 670	6, 774	95	15	1, 437	13	158	5, 600	18, 762
12	New Orleans, La.	307	1, 370	5, 241	2, 118	537	47	1, 403	39	517	7, 707	17, 009
13	Detroit, Mich.	513	893	2, 009	1, 126	477	2	104	16	390	2, 928	7, 032
14	Milwaukee, Wis.	304	1, 747	1, 756	1, 237	430	6	237	73	266	869	4, 873
15	Washington, D. C.	545	513	3, 136	5, 956	2, 822	21	2, 289	131	1, 806	9, 762	25, 923
16	Newark, N. J.	358	1, 300	2, 015	1, 751	548	13	216	154	461	1, 104	6, 262
17	Jersey City, N. J.	350	1, 002	3, 950	500	1, 450	18	120	180	580	802	7, 600
18	Louisville, Ky.	339	880	1, 481	3, 393	165	18	376	141	376	1, 754	7, 704
19	Minneapolis, Minn.	201	323	2, 065	246	257	3	690	38	435	1, 682	5, 416
20	Providence, R. I.	300	400	5, 803	299	205	2	96	88	478	1, 692	8, 663
21	Indianapolis, Ind.	171	521	1, 019	45	999	13	681	62	617	2, 018	5, 154
22	Kansas City, Mo.	173	429	1, 594	2, 620	177	14	782	157	719	5, 839	11, 902
23	St. Paul, Minn.	179	298	1, 445	1, 016	291	2	286	52	360	1, 240	4, 692
24	Rochester, N. Y.	193	618	1, 046	148	380	1	190	67	256	600	2, 688
25	Denver, Colo.	86	321	883	575	155	8	891	160	480	2, 193	5, 345
26	Toledo, Ohio.	114	647	367	447	140	-----	71	3	27	2, 320	3, 375
27	Allegheny, Pa.	135	180	626	1, 491	22	5	70	7	71	554	2, 846
28	Columbus, Ohio.	115	500	560	627	245	6	307	43	203	2, 019	4, 010
29	Worcester, Mass.	126	68	3, 375	62	249	4	86	54	206	1, 230	4, 954
30	Syracuse, N. Y.	131	398	1, 133	305	128	2	265	48	470	925	3, 586
31	New Haven, Conn.	164	389	3, 315	833	1	1	182	74	400	1, 508	6, 314
32	Paterson, N. J.	104	516	1, 246	885	176	3	36	57	126	271	2, 800
33	Fall River, Mass.	113	89	2, 493	529	381	2	28	55	170	815	4, 473
34	St. Joseph, Mo.	57	133	731	440	92	-----	387	25	237	1, 193	3, 105
35	Omaha, Nebr.	71	246	1, 416	121	254	-----	535	60	40	5, 559	8, 115
36	Los Angeles, Cal.	93	200	1, 680	521	131	4	433	64	213	832	3, 778
37	Memphis, Tenn.	81	365	1, 088	463	585	24	514	28	417	1, 812	4, 931
38	Scranton, Pa.	54	183	1, 232	356	41	1	108	24	103	775	2, 635
39	Lowell, Mass.	102	(c)	2, 872	55	135	1	9	58	185	609	3, 924
40	Albany, N. Y.	165	427	887	249	266	1	173	49	218	502	2, 345
41	Cambridge, Mass.	105	-----	1, 670	252	215	1	72	74	198	656	3, 138
42	Portland, Oreg.	58	241	1, 006	167	271	2	167	10	344	902	2, 870
43	Atlanta, Ga.	246	120	3, 891	6, 088	31	5	2, 511	118	398	2, 123	15, 172
44	Grand Rapids, Mich.	98	153	685	63	73	3	49	19	206	792	1, 890
45	Dayton, Ohio.	65	431	365	222	239	-----	108	1	235	2, 918	4, 088
46	Richmond, Va.	100	290	1, 263	475	745	7	185	46	349	1, 423	4, 493
47	Nashville, Tenn.	99	192	1, 544	1, 061	1, 138	12	886	61	424	1, 143	6, 269
48	Seattle, Wash.	65	155	744	123	136	1	352	19	265	5, 099	6, 739
49	Hartford, Conn.	92	214	2, 685	357	205	1	239	38	285	615	4, 325
50	Reading, Pa.	61	175	411	62	24	-----	130	2	60	394	1, 083
51	Wilmington, Del.	79	191	1, 220	651	321	2	110	19	284	897	3, 604
52	Camden, N. J.	99	199	1, 380	f 500	128	2	(g)	36	109	181	2, 366
53	Trenton, N. J.	80	280	321	835	116	1	156	15	35	856	2, 535
54	Bridgeport, Conn.	52	312	784	89	164	4	74	40	155	1, 345	2, 655
55	Lynn, Mass.	66	62	2, 635	15	245	1	35	56	127	869	3, 883
56	Oakland, Cal.	61	199	1, 187	150	105	4	32	20	10	1, 037	2, 545
57	Lawrence, Mass.	57	49	2, 658	212	223	1	21	24	219	734	3, 992
58	New Bedford, Mass.	90	51	1, 300	132	188	-----	16	59	110	432	2, 377
59	Des Moines, Iowa	47	67	1, 259	215	98	-----	103	34	186	1, 519	3, 413
60	Springfield, Mass.	56	47	1, 394	125	88	1	106	12	115	632	2, 473
61	Somerville, Mass.	48	-----	846	14	133	-----	15	29	68	244	1, 349
62	Troy, N. Y.	100	232	380	400	198	-----	127	50	266	210	1, 620

a Not including data relating to sanitary district of Chicago.

b Including arrests for disturbing the peace.

c Included in arrests for drunkenness.

d Not including 29 park policemen.

e One special license granted for closing out a stock of liquors belonging to an estate.

f Including arrests for vagrancy.

g Included in arrests for disturbing the peace.

TABLE II.—POLICE, RETAIL LIQUOR SALOONS, AND ARRESTS, BY CAUSES—Concluded.

Marginal number.	Cities.	Police-men	Li- censed retail liquor sa- loons.	Arrests for—								Total of fenses.
				Drunk- enness.	Dis- turb- ing the peace	As- sault and bat- tery.	Hom- icide.	Va- gran- cy.	House- break- ing.	Lar- ceny.	All other of- fenses.	
63	Hoboken, N. J.	85	365	948	471	238	10	30	43	134	706	2,580
64	Evansville, Ind.	56	298	292	83	392	2	50	16	171	770	1,776
65	Manchester, N. H.	43	.....	1,152	18	57	.....	5	51	106	718	2,106
66	Utica, N. Y.	32	249	658	14	141	5	202	15	186	544	1,765
67	Peoria, Ill.	60	193	764	285	217	.....	149	35	179	865	2,494
68	Charleston, S. C.	97	.....	459	893	253	15	400	70	331	840	3,261
69	Savannah, Ga.	109	229	938	1,705	658	21	150	99	913	1,248	5,732
70	Salt Lake City, Utah.	32	73	779	28	92	2	249	26	125	1,115	2,416
71	San Antonio, Tex.	40	84	732	447	299	7	325	46	91	1,211	3,158
72	Duluth, Minn.	41	138	1,017	185	114	.....	115	.....	166	687	2,284
73	Erie, Pa.	37	137	643	382	135	1	381	16	10	270	1,838
74	Elizabeth, N. J.	52	219	512	214	106	1	44	32	45	400	1,354
75	Wilkesbarre, Pa.	43	144	459	356	90	.....	83	5	34	433	1,460
76	Kansas City, Kans.	49	.....	453	522	210	5	496	20	204	1,195	3,105
77	Harrisburg, Pa.	37	67	875	212	168	2	69	5	92	213	1,636
78	Portland, Me.	52	.....	423	1,126	93	.....	47	26	196	472	2,382
79	Yonkers, N. Y.	50	222	290	83	174	3	76	15	142	648	1,431
80	Norfolk, Va.	69	118	1,793	510	1,496	6	484	93	745	2,266	7,393
81	Waterbury, Conn.	36	193	818	191	127	1	22	21	103	445	1,728
82	Holyoke, Mass.	46	42	651	13	145	.....	31	18	94	245	1,197
83	Fort Wayne, Ind.	37	160	278	109	27	1	152	20	42	207	836
84	Youngstown, Ohio.	28	179	1,585	858	41	.....	330	9	93	1,150	4,066
85	Houston, Tex.	49	90	761	1,018	259	49	464	64	234	1,442	4,291
86	Covington, Ky.	44	201	160	209	81	1	31	3	51	411	1,647
87	Akron, Ohio	36	130	560	166	92	.....	6,935	5	90	3,902	11,640
88	Dallas, Tex.	46	128	1,024	255	253	34	192	40	205	1,909	3,905
89	Saginaw, Mich.	42	135	460	93	120	.....	104	.....	181	392	1,287
90	Lancaster, Pa.	24	78	573	84	24	.....	4,025	8	67	181	1,662
91	Lincoln, Nebr.	17	39	479	108	110	.....	470	19	77	357	1,920
92	Brockton, Mass.	35	d 32	751	43	84	1	20	8	52	428	1,387
93	Galveston, N. Y.	36	127	739	63	86	1	93	13	102	217	1,314
94	Augusta, Ga.	68	85	650	3,053	25	5	1	21	345	1,310	5,410
95	Pawtucket, R. I.	45	129	884	190	97	.....	109	56	47	227	1,610
96	Altoona, Pa.	19	49	946	155	16	2	74	2	44	241	1,480
97	Wheeling, W. Va.	30	128	433	359	7	.....	151	.....	10	689	1,649
98	Mobile, Ala.	52	120	1,936	240	144	4	3	30	153	1,904	4,414
99	Birmingham, Ala.	38	107	1,439	1,712	856	9	258	90	915	3,259	8,538
100	Little Rock, Ark.	35	65	931	883	53	2	113	12	210	2,479	4,683
101	Springfield, Ohio.	29	135	180	444	165	2	3	22	118	770	1,704
102	Galveston, Tex.	55	317	342	210	287	7	106	25	55	1,006	2,618
103	Tacoma, Wash.	33	79	470	306	25	2	232	12	39	1,603	2,689
104	Haverhill, Mass.	28	33	980	12	195	.....	10	24	123	131	1,475
105	Spokane, Wash.	26	100	1,228	313	71	2	825	44	176	1,179	3,838
106	Terre Haute, Ind.	39	168	733	93	157	1	621	1	100	1,108	2,714
107	Dubuque, Iowa	58	143	410	27	12	.....	126	8	23	32	633
108	Quincy, Ill.	31	134	203	283	14	1	134	18	12	139	804
109	South Bend, Ind.	24	104	440	.....	63	1	19	9	52	373	957
110	Salem, Mass.	38	.....	331	17	54	.....	2	12	41	165	622
111	Johnstown, Pa.	24	57	541	362	80	.....	29	6	49	86	1,153
112	Elmira, N. Y.	35	190	536	40	53	.....	119	22	115	275	1,160
113	Allentown, Pa.	13	73	298	183	173	.....	34	.....	10	105	803
114	Davenport, Iowa.	29	155	29	191	99	.....	170	6	95	508	1,096
115	McKeesport, Pa.	37	50	200	75	45	5	25	5	25	65	445
116	Springfield, Ill.	32	140	789	888	206	3	68	23	122	956	3,055
117	Chelsea, Mass.	27	.....	482	6	91	.....	.....	43	61	339	1,022
118	Malden, Mass.	28	.....	332	23	31	.....	11	10	32	248	687
119	Topeka, Kans.	26	.....	431	217	88	.....	153	18	86	944	1,937
120	Sioux City, Iowa.	23	72	723	408	31	.....	361	3	104	223	1,853
121	Knoxville, Tenn.	26	55	234	90	70	7	50	42	264	959	1,716
122	Chattanooga, Tenn.	34	80	680	962	171	2	336	50	286	1,090	3,577
123	Superior, Wis.	26	113	798	831	39	1	250	13	75	363	1,870
124	Rockford, Ill.	18	40	246	261	29	.....	148	16	38	276	1,014
125	Taunton, Mass.	33	27	988	13	68	1	15	8	56	172	1,321
126	Joliet, Ill.	31	94	1,214	259	52	.....	121	12	41	321	2,020
127	Canton, Ohio.	24	124	533	81	64	.....	64	12	35	233	1,022
128	Butte, Mont.	41	143	536	640	153	5	684	27	124	1,511	3,680
129	Auburn, N. Y.	20	103	448	106	56	2	14	4	65	215	909

a Not including 1,100 "pool room" cases.

b Including persons who applied for lodging at city prison.

c Including 3,957 lodgers.

d Until May 1, 1899; after that date, none.

TABLE III.—FIREMEN, FIRE EQUIPMENT, AND PROPERTY LOSS FROM FIRES.

Marginal number.	Cities.	Firemen.			Equipment.				
		Regu-lars.	Call men.	Volun-teers.	Fire engines.			Hand fire extin-guish-ers.	Fire boats.
					Steam.	Hand.	Chem-ical.		
1	New York, N. Y.	2,404		3,668	195	3	10	349	6
2	Chicago, Ill.	1,100		93	98	4	27	23	5
3	Philadelphia, Pa.	764			47		5	75	4
4	St. Louis, Mo.	506			46		b 27	50	
5	Boston, Mass.	730	84	29	52		d 22	130	2
6	Baltimore, Md.	396			27		30	69	1
7	Cleveland, Ohio	401			27		4	21	2
8	Buffalo, N. Y.	430			31		7	70	2
9	San Francisco, Cal.	149	490		a 53		f 10	50	j 2
10	Cincinnati, Ohio	340			31		3	32	
11	Pittsburg, Pa.	375			27		5	69	
12	New Orleans, La.	290			27		i 12	6	
13	Detroit, Mich.	392			26		n 6	73	1
14	Milwaukee, Wis.	336			21		8	50	3
15	Washington, D. C.	207			16		2	52	
16	Newark, N. J.	206			14		2	50	
17	Jersey City, N. J.	183			15		3	30	
18	Louisville, Ky.	191			17		4	14	
19	Minneapolis, Minn.	286			23		7	24	
20	Providence, R. I.	248			9		b 9	77	
21	Indianapolis, Ind.	154			9		4	48	
22	Kansas City, Mo.	184			8		n 3	64	
23	St. Paul, Minn.	202			15		5	22	
24	Rochester, N. Y.	200			8		3	34	
25	Denver, Colo.	116		100	8		3	30	
26	Toledo, Ohio	128			8		11	12	
27	Allegheny, Pa.	113			11		2	34	
28	Columbus, Ohio	155	24		14		6	24	
29	Worcester, Mass.	103	97		7		i 4	33	
30	Syracuse, N. Y.	128			9		1	30	
31	New Haven, Conn.	112			11		n 3	35	
32	Paterson, N. J.	103			9		1	26	
33	Fall River, Mass.	83	108		6		3	36	
34	St. Joseph, Mo.	54			2		1	6	
35	Omaha, Nebr.	110			4		2	16	
36	Los Angeles, Cal.	65	26		13		u 12	24	
37	Memphis, Tenn.	60			8		8	4	
38	Scranton, Pa.	36	16	500	5		n 6	14	
39	Lowell, Mass.	75	100		6		2	18	
40	Albany, N. Y.	122	61		11		7	50	
41	Cambridge, Mass.	48	77		8		2	22	
42	Portland, Oreg.	54	73	200	6		4	32	
43	Atlanta, Ga.	107			5		2	22	
44	Grand Rapids, Mich.	127			9		2	13	
45	Dayton, Ohio	83			2		2	36	
46	Richmond, Va.	70	63		9		3	22	
47	Nashville, Tenn.	85			8		3		
48	Seattle, Wash.	73	10		7		3	14	1
49	Hartford, Conn.	64	71		10		3	27	
50	Reading, Pa.	27		1,800	10		v 7	24	
51	Wilmington, Del.	16		1,094	8		2	4	
52	Camden, N. J.	72	6		5		2	13	
53	Trenton, N. J.	72			7		1	20	
54	Bridgeport, Conn.	36	83		7		1	22	
55	Lynn, Mass.	61	107		7		i 5	21	
56	Oakland, Cal.	37	69		7		3	8	
57	Lawrence, Mass.	29	98		6		n 4	8	
58	New Bedford, Mass.	44	177		8	1	1	16	

a Not reported.

b Combination chemical engines and hose wagons.

c Not including 27 combination chemical engines and hose wagons.

d Including 5 combination chemical engines and ladder trucks and 3 combination chemical engines and hose wagons.

e Not including 5 combination chemical engines and ladder trucks.

f Not including 3 combination chemical engines and hose wagons.

g Not including private fire hydrants, number not reported.

h Also 4 monitor batteries.

i Including 1 combination chemical engine and hose wagon.

j Maintained by State.

k Not including 1 combination chemical engine and hose wagon.

l Also 306 cisterns.

m Also 211 fire wells.

n Including 2 combination chemical engines and hose wagons.

o Not including 2 combination chemical engines and hose wagons.

TABLE III.—FIREMEN, FIRE EQUIPMENT, AND PROPERTY LOSS FROM FIRES.

Equipment.							Fire alarms.	Fires.	Property loss.	Mar- ginal num- ber.
Hook and ladder trucks.	Feet of ladders.	Hose reels and hose wagons.	Feet of hose.	Fire hy- drants.	Water towers.	Horses.				
129	31,138	242	417,450	22,408	6	972	8,940	8,063	\$11,277,311.00	1
33	(a)	106	175,222	18,825	2	494	7,811	6,031	4,534,065.00	2
12	3,492	47	90,000	11,000	1	300	2,945	2,760	3,318,092.00	3
15	3,990	c 24	81,380	6,200	2	249	2,020	1,917	1,682,333.00	4
e 21	7,700	f 48	107,648	10,185	2	350	2,443	2,130	1,630,149.00	5
15	2,750	43	72,600	2,240	2	186	1,309	1,274	446,041.03	6
9	2,879	27	44,250	5,923	1	151	1,537	1,513	855,715.34	7
10	3,505	35	88,400	g 4,746	1	221	916	888	616,663.82	8
11	2,622	k 54	65,900	3,721	2	292	828	804	1,419,219.23	9
15	3,150	37	64,000	12,625	1	167	1,014	999	985,860.43	10
9	1,784	28	75,130	2,760	-----	169	1,031	1,019	457,310.08	11
7	1,074	k 27	33,761	m 1,953	1	147	1,547	498	564,002.00	12
13	2,713	o 25	68,475	p 8,493	1	191	948	846	522,819.00	13
9	2,550	23	57,700	2,366	1	161	1,326	1,106	417,580.44	14
5	1,580	17	47,650	1,906	-----	124	658	544	466,690.00	15
5	1,462	14	29,150	2,081	-----	87	777	679	347,491.60	16
6	1,070	13	27,420	2,197	1	70	585	585	220,819.00	17
6	1,000	17	29,700	q 171	1	104	769	711	316,950.83	18
10	1,666	22	53,000	8,121	1	175	1,035	991	604,431.90	19
6	2,613	r 14	33,422	1,853	1	88	827	715	333,596.26	20
5	1,112	20	33,688	1,725	2	98	957	851	233,877.63	21
s 8	458	t 17	30,300	1,957	2	79	1,191	1,165	1,368,194.16	22
7	2,500	17	44,600	2,295	1	116	694	682	422,484.72	23
7	1,800	13	30,000	2,780	-----	80	389	388	(a)	24
4	1,150	16	14,000	2,700	1	65	488	412	185,376.00	25
4	916	15	29,000	1,046	-----	70	625	573	764,684.49	26
4	726	14	2,900	1,615	-----	70	238	238	223,207.24	27
6	2,000	13	36,600	1,074	1	85	561	549	422,904.59	28
4	1,335	k 15	25,350	1,714	-----	70	565	467	167,770.54	29
3	810	10	23,350	2,539	1	61	234	152	228,609.00	30
4	1,240	o 9	22,644	900	-----	53	295	287	86,389.53	31
3	857	9	10,450	1,176	-----	49	378	378	214,104.00	32
4	1,372	12	25,000	934	-----	56	203	201	227,000.00	33
2	450	12	14,500	505	-----	31	278	277	24,877.00	34
4	870	14	19,400	1,556	1	51	422	373	374,541.00	35
4	662	v 10	21,300	655	-----	61	355	309	423,730.00	36
1	377	7	12,725	w 606	1	35	862	338	906,452.14	37
1	440	x 8	10,790	390	-----	47	289	250	195,619.00	38
4	1,067	11	20,000	1,150	1	52	366	317	106,408.13	39
4	1,090	13	19,000	808	-----	56	653	615	327,152.42	40
3	971	8	14,450	945	-----	36	295	241	236,336.66	41
5	1,000	16	19,850	514	-----	57	286	130	171,684.86	42
3	600	8	18,000	1,128	-----	38	334	384	67,000.00	43
3	1,119	11	23,000	1,500	-----	58	387	343	116,480.70	44
2	740	13	24,600	1,150	-----	35	416	127	579,807.50	45
4	768	9	17,500	590	-----	45	305	302	47,344.45	46
3	626	9	14,800	616	-----	54	261	231	207,363.00	47
3	479	8	17,000	600	1	44	227	175	193,337.00	48
3	800	8	20,000	859	-----	36	188	184	196,912.54	49
2	516	z 5	13,000	698	-----	51	69	67	1,788,143.25	50
2	488	8	10,950	747	-----	36	176	170	80,449.64	51
8	616	6	11,950	700	-----	29	141	141	95,057.06	52
2	430	6	7,000	560	-----	31	141	139	23,583.00	53
2	654	6	15,000	502	-----	36	165	156	84,021.48	54
aa 3	1,276	k 11	25,500	775	bb 1	50	403	399	57,389.91	55
3	700	9	14,150	437	-----	38	185	166	69,314.75	56
3	740	o 4	13,500	568	-----	29	172	167	39,003.15	57
3	1,020	8	17,000	723	-----	45	163	160	54,506.54	58

p Also 587 cisterns.

q Also 670 cisterns.

r Not including 9 combination chemical engines and hose wagons.

s Including 2 combination ladder trucks and hose wagons.

t Not including 2 combination chemical engines and hose wagons and 2 combination ladder trucks and hose wagons.

u Including 10 combination chemical engines and hose wagons.

v Not including 10 combination chemical engines and hose wagons.

w Also 51 cisterns.

x Owned by volunteer fire companies; not including 2 combination chemical engines and hose wagons.

y Including 5 combination chemical engines and hose wagons.

z Not including 5 combination chemical engines and hose wagons.

aa Not including 1 combination ladder truck and water tower.

bb Combination ladder truck and water tower.

TABLE III.—FIREMEN, FIRE EQUIPMENT, AND PROPERTY LOSS FROM FIRES—Continued.

Marginal number.	Cities.	Firemen.			Equipment.				
		Regu-lars.	Call men.	Volun-teers.	Fire engines.			Hand fire extin-guish-ers.	Fire boats.
					Steam.	Hand.	Chem-ical.		
59	Des Moines, Iowa.	64					7	6	
60	Springfield, Mass.	55	125	7	6		5	30	
61	Somerville, Mass.	28	76		3		a2	16	
62	Troy, N. Y.	43		694	9		1		
63	Hoboken, N. J.	55			5		1	12	
64	Evansville, Ind.	63			5		2	14	
65	Manchester, N. H.	33	127	38	6		1	15	
66	Utica, N. Y.	64			5		c4	11	
67	Peoria, Ill.	64		50	3	1	c2	8	
68	Charleston, S. C.	46	53		10		1	15	
69	Savannah, Ga.	84		10	7		3	22	
70	Salt Lake City, Utah.	28			2		1	4	
71	San Antonio, Tex.	45	20		1		1	3	
72	Duluth, Minn.	83			5		7	14	
73	Eric, Pa.	38	36		6		c2	18	
74	Elizabeth, N. J.	9		448	6			12	2 g1
75	Wilkesbarre, Pa.	23	95		4		3		
76	Kansas City, Kans.	43			1		f2	12	
77	Harrisburg, Pa.	11		500	5		c2	10	
78	Portland, Me.	35	163		7	1	c2	26	1
79	Yonkers, N. Y.	14		625			c2	10	
80	Norfolk, Va.	51	1		5		c2	12	
81	Waterbury, Conn.	22	27	110	2		1	8	
82	Holyoke, Mass.	34	98		6		c2	20	
83	Fort Wayne, Ind.	58			7		1	2	
84	Youngstown, Ohio.	30			1		i4	8	
85	Houston, Tex.	61			4		2	20	
86	Covington, Ky.	33			3		1	2	
87	Akron, Ohio.	33	13		4		1	4	
88	Dallas, Tex.	43			4		2	8	
89	Saginaw, Mich.	30	13		1			4	
90	Lancaster, Pa.	14	34		6			4	
91	Lincoln, Nebr.	30			3		1	8	
92	Brockton, Mass.	36	43		5		3	20	
93	Binghamton, N. Y.	17	4	518	3		1	2	
94	Augusta, Ga.	58			6		1	12	
95	Pawtucket, R. I.	36	23		3		f6	20	
96	Altoona, Pa.	21	21		3			16	
97	Wheeling, W. Va.	33			4		n5	12	
98	Mobile, Ala.	24	6		3			2	
99	Birmingham, Ala.	28			3		1	12	
100	Little Rock, Ark.	31	1		4		o1	4	
101	Springfield, Ohio.	32	3		2		2	3	
102	Galveston, Tex.	65			3		1	8	
103	Tacoma, Wash.	44			6		3	10	
104	Haverhill, Mass.	25	125		5	3	2	6	
105	Spokane, Wash.	63			3		c5	6	
106	Terre Haute, Ind.	51			2		1	1	
107	Dubuque, Iowa	36			3		c2	5	
108	Quincy, Ill.	27	14		5		2	6	
109	South Bend, Ind.	35	14				2	14	
110	Salem, Mass.	18	98		4		1	12	
111	Johnstown, Pa.	14		700	f9			f4	
112	Elmira, N. Y.	40	2		u6		i4		
113	Allentown, Pa.	22		809	6		3	14	
114	Davenport, Iowa.	30					1	5	
115	McKeesport, Pa.	26						10	
116	Springfield, Ill.	42			4		2	8	
117	Chelsea, Mass.	19	58		3		2	7	
118	Malden, Mass.	20	35		2		4	10	
119	Topeka, Kans.	31	4		1		2		
120	Sioux City, Iowa.	27		20	1		3	6	

a Including 1 combination chemical engine and ladder and hose wagon.

b Not including 1 combination chemical engine and ladder and hose wagon.

c Including 3 combination chemical engines and hose wagons.

d Not including 3 combination chemical engines and hose wagons.

e Including 1 combination chemical engine and hose wagon.

f Not including 1 combination chemical engine and hose wagon.

g Not owned by city.

h Owned by members of fire department.

i Combination chemical engines and hose wagons.

j Not including 2 combination chemical engines and hose wagons.

k Including 209 private fire hydrants.

TABLE III.—FIREMEN, FIRE EQUIPMENT, AND PROPERTY LOSS FROM FIRES—Continued.

Equipment.				Fire hydrants.	Water towers.	Horses.	Fire alarms.	Fires.	Property loss.	Marginal number.
Hook and ladder trucks.	Feet of ladders.	Hose reels and hose wagons.	Feet of hose.							
3	300	5	14,000	960	.....	35	411	411	\$349,587.00	59
5	1,399	9	22,000	963	1	55	213	185	94,694.02	60
b 3	1,284	b 6	8,800	911	.....	34	202	181	47,302.25	61
2	496	11	19,950	783	.....	32	158	90	60,000.00	62
2	492	4	7,350	238	.....	20	186	166	74,245.15	63
2	1,000	9	12,000	444	.....	32	227	180	61,191.00	64
4	1,387	9	25,450	735	.....	43	190	87	59,330.92	65
2	872	d 3	13,500	665	.....	34	186	164	98,221.22	66
2	418	f 7	14,500	1,030	.....	31	332	325	52,850.00	67
2	565	10	10,000	500	.....	30	94	81	29,575.71	68
3	491	16	16,760	577	.....	42	238	225	153,599.83	69
1	258	3	7,000	908	.....	17	131	119	35,093.27	70
1	200	6	10,000	650	.....	27	140	75	60,000.00	71
4	1,000	8	18,425	474	.....	45	157	157	227,670.00	72
1	317	f 8	18,300	567	.....	40	196	191	53,526.40	73
2	474	6	5,200	290	.....	h 22	92	92	115,038.00	74
2	425	5	11,960	243	.....	23	65	56	4,590.00	75
2	290	j 4	10,700	356	.....	22	244	240	324,230.20	76
1	229	f 8	7,050	587	.....	26	102	102	43,215.14	77
4	1,450	f 13	40,000	518	.....	35	228	180	202,221.29	78
3	617	15	11,100	728	.....	11	147	145	21,747.65	79
2	462	f 5	7,750	248	.....	23	161	148	51,894.92	80
2	403	5	10,050	383	.....	17	107	67	16,642.62	81
3	546	f 7	15,600	k 724	.....	32	238	235	345,320.55	82
2	502	8	13,550	705	.....	40	154	151	175,640.00	83
2	397	l 5	6,400	500	.....	18	267	153	78,512.00	84
2	602	7	18,350	625	.....	33	279	269	178,612.28	85
1	260	5	5,000	315	.....	14	133	78	16,192.37	86
2	136	4	4,800	321	.....	21	196	130	233,057.00	87
2	400	6	9,500	407	.....	33	250	240	215,205.88	88
2	295	9	17,000	900	.....	25	259	209	170,296.00	89
1	285	5	6,350	527	.....	17	60	52	67,713.15	90
2	364	3	8,000	464	.....	18	170	132	186,316.26	91
3	700	5	11,602	593	1	35	249	170	48,941.38	92
2	550	6	7,000	699	.....	20	102	92	45,215.67	93
1	240	8	4,200	532	.....	24	178	178	425,000.00	94
3	675	m 1	15,200	559	.....	20	161	155	25,725.00	95
2	414	7	7,550	410	.....	19	187	75	30,720.00	96
1	265	l 1	7,800	392	.....	24	121	121	315,564.47	97
2	333	5	6,350	912	.....	11	118	118	83,921.06	98
1	301	4	8,000	239	.....	15	242	239	27,133.79	99
2	223	f 6	3,000	312	.....	18	173	85	226,088.46	100
2	568	7	9,000	413	.....	21	182	162	13,902.85	101
2	540	8	16,000	495	1	32	230	223	48,000.00	102
3	311	p 11	12,000	348	.....	33	164	137	38,826.85	103
8	1,000	11	16,000	322	.....	28	188	143	49,742.70	104
q 2	343	d 1	12,000	459	.....	30	187	117	47,807.21	105
2	280	6	8,100	779	.....	26	121	121	r 120,765.00	106
1	457	f 4	8,000	339	.....	20	95	95	50,000.00	107
1	225	6	7,500	293	.....	28	128	92	16,000.00	108
1	302	8	14,000	487	.....	20	162	153	65,000.00	109
2	529	5	16,500	s 457	.....	25	132	121	73,403.82	110
t 1	222	t 16	12,500	129	.....	t 30	49	26	39,782.00	111
1	431	l 1	10,500	406	.....	21	163	158	38,900.54	112
1	276	5	10,400	315	.....	29	69	49	77,978.72	113
2	450	7	10,500	552	.....	17	152	143	24,958.00	114
2	300	4	5,500	300	.....	12	203	90	11,144.00	115
2	329	4	5,000	286	.....	24	126	121	41,221.00	116
1	450	5	9,600	247	.....	18	151	149	31,758.17	117
2	603	4	10,000	386	.....	22	152	138	45,660.00	118
1	173	6	8,400	v 318	.....	18	148	140	24,964.82	119
2	876	5	9,000	260	.....	18	174	125	65,274.95	120

! Not including 4 combination chemical engines and hose wagons.

m Not including 6 combination chemical engines and hose wagons.

n Including 4 combination chemical engines and hose wagons.

o Combination chemical engine and hose wagon.

p Including 3 hand hose carts.

q Also 2 sets of life-saving apparatus.

r For 8½ months.

s Not including 24 private fire hydrants.

t Owned by volunteer fire companies.

u Also 1 motor battery.

v Also 8 cisterns.

TABLE III.—FIREMEN, FIRE EQUIPMENT, AND PROPERTY LOSS FROM FIRES—Concluded.

Marginal number.	Cities.	Firemen.			Equipment.				
		Regu-lars.	Call men.	Volun-teers.	Fire engines.			Hand fire extin-guish-ers.	Fire boats.
					Steam.	Hand.	Chem-ical.		
121	Knoxville, Tenn.....	29	4	.....	4	.....	.....	11	.....
122	Chattanooga, Tenn.....	39	10	.....	5	.....	1	10	.....
123	Superior, Wis.....	43	.....	.....	2	1	2	14	.....
124	Rockford, Ill.....	27	.....	.....	3	.....	a 3	5	.....
125	Taunton, Mass.....	15	85	48	3	1	2	24	.....
126	Joliet, Ill.....	28	1	.....	2	.....	4	7	.....
127	Canton, Ohio.....	36	40	.....	2	.....	c 2	10	.....
128	Butte, Mont.....	25	.....	.....	.....	.....	1	8	.....
129	Auburn, N. Y.....	24	14	.....	.....	.....	1	6	.....

a Combination chemical engines and hose reels.

b Not including 3 combination chemical engines and hose reels.

c Including 1 combination chemical engine and hose wagon.

TABLE III.—FIREMEN, FIRE EQUIPMENT, AND PROPERTY LOSS FROM FIRES—Concluded.

Hook and ladder trucks.	Feet of ladders.	Equipment.				Fire alarms.	Fires.	Property loss.	Mar- ginal num- ber.
		Hose reels and hose wagons.	Feet of hose.	Fire hy- drants.	Water towers.	Horses.			
1	270	4	10,000	249	.....	16	121	107	\$91,970.87
1	268	5	7,000	243	.....	22	200	197	84,292.00
3	503	6	10,850	575	.....	26	133	115	50,384.48
2	311	b5	6,000	377	.....	20	160	160	8,165.44
3	950	8	12,500	765	.....	23	115	113	21,183.32
1	180	5	8,200	325	.....	21	85	79	8,089.79
2	462	d6	6,450	329	.....	19	114	99	(e)
2	360	4	6,000	381	.....	10	152	151	44,087.00
1	356	4	5,900	f429	.....	12	85	79	42,532.53

d Not including 1 combination chemical engine and hose wagon.

e Not reported.

f Not including 62 private fire hydrants.

6955—No. 30—3

TABLE IV.—MARRIAGES AND BIRTHS.

Mar- ginal num- ber.	Cities.	Mar- riages.	Births.			Birth- rate per 1,000 popula- tion.	Still- births.
			Male.	Female.	Total.		
1	New York, N. Y.	30,475	40,010	37,622	77,632	22.59	5,461
2	Chicago, Ill.	a 18,126	15,082	14,003	29,085	17.11	2,068
3	Philadelphia, Pa.	9,180	13,471	13,048	26,519	20.50	1,194
4	St. Louis, Mo.	5,244	5,342	5,080	10,422	18.12	768
5	Boston, Mass.	6,186	8,312	7,980	16,242	28.96	539
6	Baltimore, Md.	4,847	4,039	3,999	8,038	15.79	706
7	Cleveland, Ohio.	5,269	3,992	3,783	7,775	20.37	335
8	Buffalo, N. Y.	2,753	3,649	3,518	7,167	20.35	390
9	San Francisco, Cal.	3,061	2,588	2,460	5,048	14.73	282
10	Cincinnati, Ohio.	2,529	2,929	2,696	5,624	17.26	343
11	Pittsburg, Pa.	2,906	3,789	3,477	7,266	22.59	366
12	New Orleans, La.	2,198	(b)	(b)	(b)	(b)	412
13	Detroit, Mich.	1,907	1,548	1,440	2,988	10.46	433
14	Milwaukee, Wis.	2,810	3,897	3,647	7,544	26.44	396
15	Washington, D. C.	(c)	2,487	2,270	4,757	17.07	513
16	Newark, N. J.	2,090	3,469	3,203	d 6,721	27.31	281
17	Jersey City, N. J.	2,385	1,713	1,488	3,201	15.51	274
18	Louisville, Ky.	1,643	1,777	1,724	3,501	17.10	206
19	Minneapolis, Minn.	2,010	2,134	1,923	4,057	20.01	129
20	Providence, R. I.	1,672	2,173	2,115	4,288	24.42	211
21	Indianapolis, Ind.	2,370	1,566	1,445	3,010	17.79	186
22	Kansas City, Mo.	(b)	1,411	1,316	2,727	16.65	159
23	St. Paul, Minn.	1,364	1,696	1,567	3,262	19.87	121
24	Rochester, N. Y.	1,259	(b)	(b)	2,484	15.29	128
25	Denver, Colo.	2,124	(b)	(b)	(b)	(b)	e 127
26	Toledo, Ohio.	1,048	636	607	1,242	9.42	e 188
27	Allegheny, Pa.	696	650	720	1,370	10.55	154
28	Columbus, Ohio.	1,218	566	568	1,134	9.03	57
29	Worcester, Mass.	1,140	1,547	1,550	3,097	26.15	114
30	Syracuse, N. Y.	538	817	790	1,607	14.83	141
31	New Haven, Conn.	993	1,529	1,362	2,891	26.76	146
32	Paterson, N. J.	894	1,067	996	2,063	19.52	104
33	Fall River, Mass.	1,028	2,162	1,901	4,063	38.75	131
34	St. Joseph, Mo.	(b)	319	298	617	6.99	26
35	Omaha, Nebr.	1,266	910	816	1,726	16.83	78
36	Los Angeles, Cal.	(b)	726	578	1,304	12.72	42
37	Memphis, Tenn.	(b)	(b)	(b)	(b)	(b)	(b)
38	Scranton, Pa.	342	579	599	1,178	11.56	106
39	Lowell, Mass.	940	1,250	1,150	2,400	25.27	137
40	Albany, N. Y.	505	625	690	1,315	13.97	(b)
41	Cambridge, Mass.	1,020	1,355	1,336	2,691	29.29	91
42	Portland, Oreg.	764	562	553	1,115	12.33	34
43	Atlanta, Ga.	810	467	458	925	10.29	174
44	Grand Rapids, Mich.	750	830	792	1,622	18.52	110
45	Dayton, Ohio.	756	773	727	1,500	17.58	73
46	Richmond, Va.	778	(b)	(b)	(b)	(b)	225
47	Nashville, Tenn.	(b)	773	722	1,495	18.49	111
48	Seattle, Wash.	482	344	321	665	8.24	61
49	Hartford, Conn.	764	913	947	1,860	23.29	70
50	Reading, Pa.	951	779	784	1,563	19.79	69
51	Wilmington, Del.	654	711	661	1,372	17.93	96
52	Camden, N. J.	1,080	551	513	1,064	14.01	83
53	Trenton, N. J.	631	396	292	688	9.39	61
54	Bridgeport, Conn.	618	993	870	1,863	26.24	68
55	Lynn, Mass.	730	792	721	1,513	22.06	63
56	Oakland, Cal.	892	469	410	879	13.13	44
57	Lawrence, Mass.	742	(b)	(b)	(b)	(b)	91
58	New Bedford, Mass.	684	1,013	926	1,939	31.05	77
59	Des Moines, Iowa.	950	416	395	811	13.05	(b)
60	Springfield, Mass.	601	845	738	1,583	25.51	54
61	Somerville, Mass.	627	796	713	1,509	24.48	56
62	Troy, N. Y.	389	(b)	(b)	(b)	(b)	63
63	Hoboken, N. J.	694	732	698	1,430	24.09	92
64	Evansville, Ind.	698	474	494	968	16.40	34
65	Manchester, N. H.	588	728	706	g 1,436	25.20	68
66	Utica, N. Y.	300	527	512	1,039	18.43	51
67	Peoria, Ill.	412	(b)	(b)	(b)	(b)	36
68	Charleston, S. C.	(b)	(b)	(b)	(b)	(b)	193
69	Savannah, Ga.	824	594	458	1,052	19.39	196
70	Salt Lake City, Utah.	900	549	561	1,110	20.74	12
71	San Antonio, Tex.	737	206	201	407	7.63	58

a In Cook County.

b Not reported.

c 2,897 marriage licenses issued; 1,733 marriages reported.

d Including 49 births, sex not reported.

e Including deaths from premature birth.

f Included in deaths from premature birth.

g Including 2 births, sex not reported.

TABLE IV.—MARRIAGES AND BIRTHS—Concluded.

Mar- ginal num- ber.	Cities.	Mar- riages.	Births.			Birth- rate per 1,000 popula- tion.	Still- births.
			Male.	Female.	Total.		
72	Duluth, Minn	434	544	479	1,023	19.31	42
73	Erie, Pa	424	583	607	1,190	22.57	73
74	Elizabeth, N. J	263	453	572	1,026	19.66	47
75	Wilkesbarre, Pa	(a)	(a)	(a)	(a)	(a)	48
76	Kansas City, Kans	(a)	(a)	(a)	(a)	(a)	27
77	Harrisburg, Pa	262	434	456	890	17.74	57
78	Portland, Me	475	515	499	1,014	20.22	52
79	Yonkers, N. Y	341	534	558	1,092	22.78	56
80	Norfolk, Va	510	290	256	545	11.69	63
81	Waterbury, Conn	434	723	692	1,415	30.86	62
82	Holyoke, Mass	(a)	841	919	1,760	38.50	63
83	Fort Wayne, Ind	625	320	284	604	13.39	b 56
84	Youngstown, Ohio	970	511	461	972	21.66	b 101
85	Houston, Tex	883	(a)	(a)	(a)	(a)	9
86	Covington, Ky	975	403	312	715	16.65	37
87	Akron, Ohio	422	387	363	750	17.55	b 45
88	Dallas, Tex	980	(a)	(a)	(a)	(a)	42
89	Saginaw, Mich	441	506	490	996	23.52	15
90	Lancaster, Pa	520	278	311	589	14.21	47
91	Lincoln, Nebr	596	(a)	(a)	(a)	(a)	11
92	Brockton, Mass	400	476	456	932	23.26	28
93	Binghamton, N. Y	531	293	262	555	14.00	23
94	Augusta, Ga	496	(a)	(a)	(a)	(a)	(a)
95	Pawtucket, R. I	388	(a)	(a)	(a)	(a)	36
96	Albion, Pa	274	536	567	1,103	28.30	32
97	Wheeling, W. Va	583	(a)	(a)	(a)	(a)	65
98	Mobile, Ala	661	424	416	840	21.84	116
99	Birmingham, Ala	635	343	293	636	16.56	68
100	Little Rock, Ark	(a)	(a)	(a)	(a)	(a)	64
101	Springfield, Ohio	335	328	347	675	17.65	28
102	Galveston, Tex	520	(a)	(a)	(a)	(a)	80
103	Tacoma, Wash	242	233	214	447	11.85	18
104	Haverhill, Mass	396	266	268	534	14.36	40
105	Spokane, Wash	507	324	320	644	17.48	33
106	Terre Haute, Ind. (c)	429	(a)	(a)	(a)	(a)	15
107	Dubuque, Iowa	326	331	310	641	17.66	(a)
108	Quincy, Ill	(a)	(a)	(a)	(a)	(a)	25
109	South Bend, Ind	418	(a)	(a)	(a)	(a)	(a)
110	Salem, Mass	344	479	470	949	26.39	35
111	Johnstown, Pa	244	474	429	903	25.13	32
112	Elmira, N. Y	410	300	271	571	16.01	31
113	Allentown, Pa	235	365	357	722	20.39	25
114	Davenport, Iowa	322	274	276	d 565	16.03	18
115	McKeesport, Pa	172	587	597	1,184	34.59	47
116	Springfield, Ill	354	(a)	(a)	(a)	(a)	b 43
117	Chelsea, Mass	385	467	440	907	26.62	30
118	Malden, Mass	339	401	416	817	24.27	39
119	Topeka, Kans	595	(a)	(a)	(a)	(a)	26
120	Sioux City, Iowa	528	129	204	333	10.06	(e)
121	Knoxville, Tenn	(a)	(a)	(a)	(a)	(a)	30
122	Chattanooga, Tenn	(a)	(a)	(a)	(a)	(a)	(a)
123	Superior, Wis	245	189	221	410	13.19	14
124	Rockford, Ill	278	(a)	(a)	525	16.91	9
125	Taunton, Mass	331	392	362	754	24.29	28
126	Joliet, Ill	300	(a)	(a)	(a)	(a)	13
127	Canton, Ohio	272	(a)	(a)	(a)	(a)	(a)
128	Butte, Mont	560	292	262	554	18.18	19
129	Auburn, N. Y	275	251	237	488	15.75	22

a Not reported.

b Including deaths from premature birth.

c Data are for 8½ months.

d Including 15 births, sex not reported.

e Included in deaths from premature birth.

TABLE V.—DEATHS, BY CAUSES.

[In this table consumption includes all forms of consumption of the lungs and throat, but not consumption of the intestines, etc.; violence includes all deaths not attributable to disease, such as suicide, murder, manslaughter, homicide, accident, etc.; scarlet fever includes scarlatina.]

Marginal number.	Cities.	Number of deaths from—											Men- ingitis and cere- bro-spinal men- ingitis
		Con- sumption.	Pneu- monia.	Heart dis- ease.	Viol- ence.	Apoplexy.	Diph- theria.	Diarrheal diseases.		Can- cer.	Bron- chitis.		
								Cholera in- fan- tum.	Other.				
1	New York, N. Y.	8,016	8,531	3,954	3,390	2,392	1,606	1,667	1,792	2,136	1,989	1,688	
2	Chicago, Ill.	2,516	3,438	1,492	1,554	514	843	581	1,936	890	1,014	695	
3	Philadelphia, Pa.	2,818	2,424	1,482	473	842	849	726	145	717	389	146	
4	St. Louis, Mo.	1,091	914	630	541	154	192	403	64	297	369	411	
5	Boston, Mass.	1,236	1,455	966	620	428	277	280	116	402	393	281	
6	Baltimore, Md.	987	898	562	411	358	261	343	568	330	267	88	
7	Cleveland, Ohio.	482	521	346	293	136	83	151	36	184	136	225	
8	Buffalo, N. Y.	459	463	304	251	160	70	187	96	205	177	166	
9	San Francisco, Cal.	942	697	670	539	270	108	55	27	345	144	206	
10	Cincinnati, Ohio.	692	451	434	321	152	65	50	12	205	258	232	
11	Pittsburg, Pa.	408	709	288	491	118	70	454	96	144	177	128	
12	New Orleans, La.	916	585	613	348	191	14	249	534	161	218	243	
13	Detroit, Mich.	401	419	274	211	167	89	304	174	147	149	174	
14	Milwaukee, Wis.	372	286	228	207	120	109	88	312	194	173	123	
15	Washington, D. C.	713	508	503	233	256	174	129	141	177	144	187	
16	Newark, N. J.	624	477	379	180	260	124	160	233	179	118	201	
17	Jersey City, N. J.	432	433	209	210	(c)	83	(d)	e 140	89	88	522	
18	Louisville, Ky.	438	326	182	145	53	26	26	69	29	96	180	
19	Minneapolis, Minn.	248	139	111	82	54	38	47	84	95	30	56	
20	Providence, R. I.	368	809	249	150	149	33	131	148	132	101	67	
21	Indianapolis, Ind.	289	164	233	124	60	51	90	20	102	37	84	
22	Kansas City, Mo.	87	382	156	103	40	18	46	62	64	56	166	
23	St. Paul, Minn.	221	135	131	127	48	41	23	30	66	5	104	
24	Rochester, N. Y.	245	214	215	100	125	53	65	48	121	71	8	
25	Denver, Colo.	535	186	124	108	53	25	35	27	79	31	111	
26	Toledo, Ohio.	179	134	94	113	35	161	78	110	66	28	53	
27	All-gheny, Pa.	196	274	107	136	67	25	(d)	e 216	48	84	72	
28	Columbus, Ohio (h)	233	99	130	71	55	13	52	58	66	10	67	
29	Worcester, Mass.	213	200	168	62	72	140	103	23	72	39	77	
30	Syracuse, N. Y.	136	83	96	79	30	44	102	16	41	30	83	
31	New Haven, Conn.	202	151	190	80	90	22	95	22	74	61	41	
32	Paterson, N. J.	204	247	152	120	66	98	53	101	53	57	73	
33	Fall River, Mass.	137	174	95	59	38	10	262	54	23	88	90	
34	St. Joseph, Mo.	35	62	53	60	8	21	29	12	18	26	28	
35	Omaha, Nebr.	117	126	65	74	40	20	46	26	18	37	37	
36	Los Angeles, Cal.	289	125	142	86	42	16	8	40	65	29	87	
37	Memphis, Tenn.	250	220	74	121	19	6	25	151	24	20	103	
38	Scranton, Pa.	99	154	93	129	38	97	60	44	20	66	31	
39	Lowell, Mass.	181	182	166	68	63	23	176	10	44	72	53	
40	Albany, N. Y.	245	171	182	82	85	41	15	58	81	42	12	
41	Cambridge, Mass.	166	163	132	42	63	155	62	59	51	51	61	
42	Portland, Oreg.	139	59	85	72	9	9	18	4	37	16	32	
43	Atlanta, Ga.	244	199	89	54	40	14	96	24	23	33	52	
44	Grand Rapids, Mich.	94	114	88	45	43	11	29	29	49	30	44	
45	Dayton, Ohio.	181	84	120	73	74	6	18	30	55	17	163	
46	Richmond, Va.	218	125	110	54	47	3	45	68	29	35	40	
47	Nashville, Tenn.	262	188	111	63	74	32	90	91	53	33	46	
48	Seattle, Wash.	63	56	48	76	10	16	10	11	26	6	25	
49	Hartford, Conn. (k)	138	151	106	82	80	58	82	164	43	24	44	
50	Reading, Pa.	77	92	118	100	59	21	30	8	28	18	36	
51	Wilmington, Del.	154	126	75	52	41	59	34	39	30	14	65	
52	Camden, N. J.	142	130	81	70	49	63	24	26	24	11	48	
53	Trenton, N. J.	143	164	101	64	39	12	117	44	28	142		
54	Bridgeport, Conn.	85	78	73	57	32	110	56	47	31	32	30	
55	Lynn, Mass.	85	85	92	44	45	10	45	37	51	26	22	
56	Oakland, Cal.	126	68	112	73	32	15	7	4	64	29	19	
57	Lawrence, Mass.	65	108	94	23	35	60	111	50	24	36	45	
58	New Bedford, Mass.	105	109	109	3	46	125	74	47	44	33	55	
59	Des Moines, Iowa.	59	63	58	46	10	4	11	16	19	13	30	
60	Springfield, Mass.	121	69	77	42	41	155	54	6	42	24	23	
61	Somerville, Mass.	94	111	89	22	41	11	27	34	22	32		
62	Troy, N. Y.	177	115	117	20	23	18	52	32	18	23	54	
63	Hoboken, N. J.	137	137	90	67	31	21	31	14	16	87	68	

a Not reported.

b Not including deaths from premature birth.

c Included in deaths from all other causes.

d Included in deaths from other diarrheal diseases.

e Included in deaths from cholera infantum.

f Including deaths from apoplexy, old age, hydrocephalus, septicæmia, and premature birth.

TABLE V.—DEATHS, BY CAUSES.

[In this table consumption includes all forms of consumption of the lungs and throat, but not consumption of the intestines, etc.; violence includes all deaths not attributable to disease, such as suicide, murder, manslaughter, homicide, accident, etc.; scarlet fever includes scarlatina.]

Number of deaths from—															Total deaths	Mar- ginal num- ber.
Ma- rus- mus and in- an- tion.	Measles.	Ne- phri- tis.	Old age.	Ty- phoid fever.	Mal- arial fever.	Scar- let fever.	Hy- dro- ceph- alus.	Sep- tica- mia.	Croup.	Al- co- hol- ism.	Whoop- ing cough.	Pre- ma- ture birth.	All other causes.			
2,136	587	5,113	1,305	546	167	533	864	170	318	443	514	1,178	14,308	65,343	1	
728	168	1,180	480	442	25	533	45	239	74	163	77	266	5,610	25,503	2	
838	71	2,08	766	948	16	132	47	149	166	69	166	738	8,273	24,534	3	
441	15	473	563	131	148	38	15	77	49	25	59	95	2,829	10,024	4	
512	33	298	212	165	1	74	157	61	27	68	76	207	2,822	11,167	5	
530	5	668	358	153	48	24	21	50	51	31	19	247	2,884	10,152	6	
487	2	158	248	119	2	36	4	59	24	18	26	69	1,711	6,556	7	
172	50	212	303	88	1	32	6	29	19	52	42	243	1,117	4,904	8	
299	72	305	128	175	14	54	14	117	5	130	50	(a)	1,739	6,7105	9	
199	56	149	253	121	8	13	1	16	29	16	1	162	2,104	6,000	10	
210	54	156	67	343	3	42	9	26	19	28	103	143	1,734	6,020	11	
157	17	522	397	155	228	3	4	78	3	29	20	117	2,091	7,893	12	
234	2	140	154	55	21	8	9	37	12	8	23	(c)	1,327	4,539	13	
78	26	132	69	47	...	36	1	29	4	15	9	63	1,122	3,843	14	
157	27	301	208	169	49	19	7	5	17	17	12	110	1,763	6,026	15	
170	6	287	86	66	16	34	17	44	3	15	21	137	700	4,517	16	
122	10	209	(c)	30	22	34	(c)	25	26	13	25	(c)	1,157	3,854	17	
189	9	47	170	122	1	3	10	25	22	5	5	9	1,332	3,519	18	
101	3	108	104	71	...	9	5	17	1	15	26	82	720	2,216	19	
81	27	209	72	43	9	19	5	18	11	15	47	64	705	3,162	20	
123	4	58	128	64	25	29	10	35	14	2	1	186	641	2,574	21	
149	10	51	40	50	8	5	4	39	9	9	20	66	1,054	2,694	22	
86	...	51	48	30	...	5	...	...	...	...	...	68	541	1,765	23	
68	7	140	136	30	...	19	4	12	...	8	...	57	520	2,343	24	
62	9	84	59	51	1	7	...	19	6	14	21	(g)	488	6,135	25	
137	5	39	92	40	8	14	...	20	2	1	11	(g)	412	6,132	26	
61	9	58	55	136	...	12	1	17	13	...	9	39	473	2,108	27	
59	4	54	70	28	1	3	...	14	...	1	4	44	224	1,360	28	
22	5	88	68	19	2	10	3	14	(j)	5	4	49	442	1,800	29	
37	2	25	90	20	6	38	8	4	...	3	2	29	454	1,462	30	
38	...	111	61	28	11	11	...	...	...	6	5	51	367	1,717	31	
73	32	93	35	49	4	12	1	2	14	5	6	52	485	2,087	32	
96	12	61	32	11	16	3	3	8	15	6	14	39	576	1,924	33	
23	...	20	24	35	1	...	...	10	16	3	7	22	310	826	34	
65	11	23	66	26	3	4	4	6	...	9	8	26	367	1,187	35	
43	2	83	64	40	1	3	3	25	17	15	5	31	380	1,641	36	
63	5	77	49	39	206	2	4	22	4	8	1	25	636	2,152	37	
61	...	28	31	25	2	40	2	11	16	4	3	27	638	1,722	38	
47	26	54	22	17	...	9	...	...	16	...	14	27	588	1,848	39	
100	2	68	76	82	1	10	5	17	13	12	12	11	545	1,968	40	
70	8	59	36	20	...	8	6	10	(j)	3	28	29	357	1,539	41	
15	3	24	20	21	...	2	2	10	...	2	5	7	232	863	42	
66	11	21	31	77	17	11	...	7	19	4	6	60	871	2,068	43	
49	15	17	46	26	5	5	6	8	25	4	7	14	349	1,132	44	
46	...	71	55	31	4	2	2	14	1	3	2	27	130	1,211	45	
86	...	56	34	37	16	2	3	14	3	2	...	5	547	1,579	46	
92	10	56	66	50	29	...	3	30	...	4	16	32	456	1,887	47	
20	3	14	13	25	...	2	2	7	3	7	1	4	151	599	48	
3	5	89	82	38	10	1	4	11	9	6	8	27	145	1,430	49	
42	...	22	21	26	3	6	...	6	12	1	2	67	251	1,046	50	
80	1	46	27	46	4	1	3	7	8	1	5	14	362	1,294	51	
94	...	80	9	29	1	1	1	8	17	2	2	10	333	1,255	52	
41	4	69	18	33	1	2	...	...	...	...	6	7	122	1,160	53	
26	1	60	18	8	15	9	3	11	(j)	...	18	22	349	1,071	54	
...	7	39	56	13	3	3	13	9	1	13	7	30	282	1,018	55	
24	...	35	19	24	6	1	...	10	2	1	1	10	221	933	56	
64	4	23	19	20	...	2	1	1	6	1	22	24	396	1,234	57	
23	...	19	21	16	...	11	...	8	(j)	4	...	30	379	1,161	58	
16	5	18	22	9	3	...	2	5	3	1	...	124	230	1,667	59	
36	5	84	31	15	3	2	...	7	(j)	8	2	19	172	938	60	
23	1	24	30	15	...	3	...	4	...	...	2	23	193	801	61	
50	20	37	34	46	...	2	...	5	8	1	1	14	409	1,277	62	
52	2	45	11	18	2	10	...	6	17	6	1	8	314	1,138	63	

g Included in stillbirths.

h Data do not include 393 deaths in hospitals, asylums, and public institutions.

i Including deaths from croup.

j Included in deaths from diphtheria.

k Data do not include deaths of nonresidents who died in hospitals.

l Including stillbirths.

TABLE V.—DEATHS, BY CAUSES—Concluded.

Marginal number.	Cities.	Number of deaths from—										
		Con- sump- tion.	Pneu- mo- nia.	Heart dis- ease.	Vio- lence	Apo- plexy	Diph- ther- ia.	Diarrheal diseases.		Can- cer.	Bron- chi- tis.	Men- ingitis and cere- bro- spinal men- ingitis
								Chol- era in- fan- tum.	Other.			
64	Evansville, Ind.	128	78	39	31	19	5	18	19	23	26	51
65	Manchester, N. H.	91	113	57	28	29	6	78	14	18	65	43
66	Utica, N. Y.	112	99	91	48	32	42	12	16	31	11	49
67	Peoria, Ill.	68	102	60	30	10	3	15	8	17	10	27
68	Charleston, S. C.	173	97	88	133	48	1	20	193	50	25	18
69	Savannah, Ga.	193	153	56	53	19	5	12	84	11	27	45
70	Salt Lake City, Utah.	51	45	42	35	17	7	32	30	21	16	27
71	San Antonio, Tex.	122	62	18	56	20	8	38	79	32	14	21
72	Duluth, Minn.	34	53	9	64	7	2	32		16	8	13
73	Erle, Pa.	74	69	73	35	31	a 16	18	26	23	16	24
74	Elizabeth, N. J.	75	91	54	49	32	25	36	18	9	26	38
75	Wilkesbarre, Pa.	38	93	32	30	19	18	34	5	24	12	16
76	Kansas City, Kans.	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(r)	(c)
77	Harrisburg, Pa.	61	35	65	47	29	20	16	7	17	3	33
78	Portland, Me.	94	76	66	40	67	14	3	41	41	10	43
79	Yonkers, N. Y.	107	80	69	40	34	4	18	60	17	22	56
80	Norfolk, Va.	156	68	67	19	18	7	17	34	15	28	18
81	Waterbury, Conn.	47	70	49	46	25	6	91	19	15	32	9
82	Holyoke, Mass.	91	40	40	35	22	6	54	32	21	27	22
83	Fort Wayne, Ind.	75	58	30	34	14	6	5	10	39	7	24
84	Youngstown, Ohio.	43	68	54	39	14	7	37	24	11	27	25
85	Houston, Tex.	76	19	34	33	7	3	33	78	7	5	12
86	Covington, Ky.	101	80	64	21	18	a 7	22	36	24		53
87	Akron, Ohio	45	41	51	51	11	6	10	11	25	11	50
88	Dallas, Tex.	98	75	44	57	15	9	25	54	6	15	16
89	Saginaw, Mich.	43	50	40	31	13	5	10	8	25	12	18
90	Lancaster, Pa.	57	78	64	14	37	a 38	16	14	16	15	87
91	Lincoln, Nebr.	41	44	35	10	6	4	21	3	5	3	21
92	Brockton, Mass.	66	46	34	14	18	6	15	10	20	11	20
93	Binghamton, N. Y.	78	45	60	26	27	9	13	29	26	18	14
94	Augusta, Ga.	128	71	71	21	5	1	32	125	15	7	22
95	Pawtucket, R. I.	78	40	57	24	23	10	41	5	14	29	28
96	Altoona, Pa.	42	50	30	49	21	21	26	15	16	10	19
97	Wheeling, W. Va.	71	43	36	33	15	4	7	25	22	12	22
98	Mobile, Ala.	148	58	33	55	31	1	8	57	19	13	25
99	Birmingham, Ala.	108	64	37	44	9	2	49	58	13	11	30
100	Little Rock, Ark.	125	60	81	42	7	2	12	60	12	7	65
101	Springfield, Ohio.	63	34	47	16	17	2	14	2	22	23	40
102	Galveston, Tex.	84	22	29	33	13	6		10	17	4	37
103	Tacoma, Wash.	42	23	21	27	12	2			21	3	4
104	Haverhill, Mass.	58	53	56	34	16	14	21	3	24	19	18
105	Spokane, Wash.	52	57	81	30	1	a 6	32	19	15	4	18
106	Terre Haute, Ind. (f).	14	17	26	37	4	10	7	6	12	3	22
107	Dubuque, Iowa.	30	37	30	17		8	16	5	15	17	27
108	Quincy, Ill.	59	39	31	43	8	3	24	12	10	21	19
109	South Bend, Ind.	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
110	Salem, Mass.	61	49	60	23	27	6	52	26	30	24	29
111	Johnstown, Pa.	36	50	41	51	10	6	42	7	16	4	8
112	Elmira, N. Y.	66	36	27	6	29	4	3	1	19	24	17
113	Allentown, Pa.	42	27	61	35	33	19	25	4	11	4	24
114	Davenport, Iowa.	39	24	38	15	21		12	1	29	19	31
115	McKeesport, Pa.	31	68	20	57	8	25	27	26	8	13	23
116	Springfield, Ill.	75	21	37	49	11	22	26	10	17	12	25
117	Chelsea, Mass. (g)	9	74	56		23	10	18	6	33	9	11
118	Malden, Mass.	51	34	52	8	16	9	53		14	15	15
119	Topeka, Kans.	51	37	40	38	2	4	12	2	12	1	12
120	Sioux City, Iowa.	15	14	14	17	3	6		8	10	7	3
121	Knoxville, Tenn.	94	56	29	24	6		8	21	9	4	38
122	Chattanooga, Tenn.	105	74	37	27	7	3	5	28	9	8	52
123	Superior, Wis.	19	44	24	30	5	5	33		11	3	6
124	Rockford, Ill.	36	20	20	10	6	8	5	8	12	13	19
125	Taunton, Mass.	67	72	50	4	27	a 8	20	30	16	12	12
126	Joliet, Ill.	41	39	35	43	8	5	21	12	5	8	24
127	Canton, Ohio.	25	26	20	6	8	21	6	3	10	3	8
128	Butte, Mont.	28	163	39	66	9	2	19	1	5	18	16
129	Auburn, N. Y.	40	49	57	1	35	17	16	9	29	6	15

a Including deaths from croup.

b Included in deaths from diphtheria.

c Not reported.

d Not including deaths from premature birth.

TABLE V.—DEATHS, BY CAUSES—Concluded.

Number of deaths from—														Total deaths.	Marginal number.
Marasmus and inanition.	Menses.	Nephritis.	Old age.	Typhoid fever.	Malarial fever.	Scarlet fever.	Hydrocephalus.	Septicæmia.	Croup.	Alcoholism.	Whooping cough.	Premature birth.	All other causes.		
60	2	23	14	39	1	.....	3	6	5	3	4	41	322	960	64
43	5	29	24	12	.....	3	5	8	10	2	15	35	327	1,060	65
28	.....	16	38	10	.....	7	.....	9	3	3	1	5	315	978	66
9	1	14	43	10	5	2	.....	12	2	6	6	3	242	705	67
78	14	169	51	61	35	1	4	11	.....	5	18	29	638	1,950	68
88	15	30	54	19	89	5	.....	12	1	6	1	51	565	1,594	69
24	3	42	70	11	1	12	1	9	.....	5	7	25	104	637	70
49	4	34	43	23	17	2	.....	13	.....	.....	2	31	753	1,441	71
12	.....	2	8	20	.....	.....	1	1	1	2	3	42	249	579	72
40	1	31	34	18	.....	9	1	6	(b)	.....	3	(c)	182	d 730	73
37	2	55	11	9	1	9	5	12	4	5	6	23	225	857	74
27	1	26	2	15	.....	3	1	2	3	3	1	18	286	711	75
(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	76
26	.....	20	24	20	.....	2	.....	3	1	.....	5	21	251	706	77
23	5	46	37	15	.....	3	.....	12	6	4	10	11	220	887	78
20	.....	46	7	5	2	2	1	7	2	1	.....	16	171	787	79
15	.....	41	27	36	32	2	1	16	3	4	17	25	408	1,069	80
6	2	22	13	15	9	6	1	1	1	5	.....	1	294	785	81
32	.....	12	8	11	1	3	3	4	2	.....	10	18	207	701	82
58	.....	30	37	15	10	1	.....	12	.....	.....	3	(e)	136	d 604	83
25	.....	20	21	54	2	.....	.....	8	2	2	5	(e)	176	d 664	84
37	3	21	25	13	73	22	1	11	6	6	8	.....	475	1,008	85
15	1	40	10	17	2	.....	.....	10	(b)	.....	.....	22	430	968	86
17	.....	30	35	13	.....	5	.....	8	16	.....	5	(e)	177	d 618	87
47	12	20	10	22	13	2	.....	7	2	1	2	14	339	905	88
19	2	7	20	11	2	1	.....	12	.....	.....	11	18	185	543	89
31	.....	23	35	28	.....	.....	.....	7	(b)	2	.....	7	181	750	90
3	1	19	14	9	.....	4	.....	1	1	1	2	8	112	368	91
18	.....	12	18	7	.....	1	5	1	5	1	4	13	113	458	92
10	.....	25	44	11	.....	4	.....	10	3	2	6	1	246	707	93
22	.....	31	6	18	47	1	2	12	.....	3	5	16	235	896	94
7	.....	30	17	10	.....	1	5	1	4	.....	3	1	208	636	95
39	2	23	18	13	1	3	1	6	.....	3	3	25	193	629	96
13	1	23	15	27	.....	1	.....	4	2	6	4	3	131	520	97
41	1	63	32	21	21	.....	.....	17	1	4	.....	8	269	926	98
39	2	12	12	15	6	1	8	21	2	1	7	6	154	711	99
21	2	9	13	21	7	1	.....	13	1	1	1	25	360	898	100
9	.....	34	34	24	.....	5	.....	4	4	.....	8	15	108	525	101
35	4	38	25	32	8	8	1	7	7	.....	.....	.....	386	806	102
16	.....	9	5	5	.....	5	.....	1	.....	.....	10	.....	120	326	103
15	.....	22	22	5	.....	2	.....	4	3	6	9	8	122	534	104
14	4	16	14	17	4	2	1	11	(b)	2	3	4	154	511	105
21	.....	11	13	21	3	.....	.....	2	3	1	.....	13	161	407	106
9	4	5	29	6	1	3	.....	7	4	.....	.....	.....	163	433	107
13	.....	17	20	9	.....	3	.....	6	7	1	1	13	139	498	108
(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	109
41	2	24	21	7	.....	8	.....	4	3	1	3	21	190	712	110
39	4	10	17	28	.....	2	.....	5	7	1	4	10	156	554	111
3	.....	44	21	11	.....	4	4	3	4	2	8	20	182	535	112
15	.....	11	7	22	.....	6	.....	2	4	.....	3	26	135	516	113
15	4	38	15	1	1	3	.....	3	.....	.....	1	11	147	468	114
20	.....	14	1	14	.....	3	.....	7	1	.....	8	22	146	542	115
14	.....	14	24	20	.....	.....	.....	4	4	2	.....	.....	146	d 533	116
20	2	12	10	.....	3	.....	.....	1	3	.....	5	13	318	636	117
16	2	26	23	4	.....	.....	.....	3	.....	.....	.....	6	107	454	118
2	2	6	13	25	6	1	1	1	7	.....	2	2	204	483	119
1	.....	5	5	3	.....	1	.....	.....	1	1	.....	h 22	177	h 313	120
4	24	13	15	13	1	2	.....	5	4	3	1	2	172	548	121
29	2	11	17	21	2	1	1	2	1	.....	3	9	157	611	122
1	.....	7	10	.....	.....	5	.....	.....	4	.....	3	9	133	352	123
5	2	8	14	8	2	.....	.....	1	2	.....	1	.....	68	263	124
31	.....	19	37	7	2	2	1	4	(b)	1	4	4	228	658	125
10	1	4	16	7	.....	1	.....	6	8	1	4	.....	123	422	126
8	.....	5	16	12	.....	.....	.....	5	6	.....	5	3	114	310	127
16	5	12	5	11	.....	3	.....	8	1	11	1	13	161	608	128
11	.....	18	20	7	2	2	1	3	1	2	1	11	134	487	129

c Included in stillbirths.

f Data are for 8½ months.

g Data include 88 deaths in naval, marine, and soldiers' home hospitals.

h Including stillbirths.

TABLE VI.—PERCENTAGE OF DEATHS FROM EACH SPECIFIED CAUSE.

Marginal number.	Cities.	Consumption.	Pneumonia.	Heart disease.	Violence.	Apoplexy.	Diphtheria.	Diarrheal diseases.		Cancer.	Bronchitis.	Meningitis and cerebro-spinal meningitis.
								Cholera infantum.	Other.			
1	New York, N. Y.	12.27	13.06	6.05	5.19	3.66	2.46	2.55	2.74	3.27	3.04	2.58
2	Chicago, Ill.	9.87	13.48	5.85	6.09	2.01	3.31	2.28	7.59	3.49	3.98	2.72
3	Philadelphia, Pa.	11.49	9.88	6.04	1.93	3.43	3.46	2.96	.59	2.92	1.59	.59
4	St. Louis, Mo.	10.88	9.12	6.28	5.40	1.53	1.91	4.02	.64	2.96	3.68	4.10
5	Boston, Mass.	11.07	13.08	8.65	6.55	3.83	2.48	2.51	1.04	3.60	3.52	2.52
6	Baltimore, Md.	9.72	8.84	5.44	4.05	3.53	2.57	3.38	5.59	3.25	2.63	.87
7	Cleveland, Ohio.	8.68	9.38	6.23	5.27	2.45	1.49	2.72	.65	3.31	2.45	4.05
8	Buffalo, N. Y.	9.36	9.44	6.20	5.12	3.26	1.43	3.81	1.96	4.18	3.61	3.38
9	San Francisco, Cal.	13.26	9.81	9.43	7.59	3.80	1.62	.77	.38	4.86	2.03	2.90
10	Cincinnati, Ohio.	11.53	7.52	7.23	5.35	2.53	1.08	.83	.20	3.42	4.30	3.87
11	Pittsburg, Pa.	6.78	11.78	4.78	8.16	1.96	1.16	7.54	1.59	2.39	2.94	2.13
12	New Orleans, La.	11.60	7.41	7.77	4.41	2.42	.18	3.15	6.77	2.04	2.76	3.08
13	Detroit, Mich.	8.83	9.23	6.04	4.65	3.68	1.96	6.70	3.83	3.24	3.28	3.83
14	Milwaukee, Wis.	9.68	7.44	5.93	5.39	3.12	2.84	2.29	8.12	5.05	4.50	3.20
15	Washington, D. C.	11.83	8.43	8.35	3.87	4.25	2.89	2.14	2.34	2.94	2.39	3.10
16	Newark, N. J.	13.75	10.51	8.35	3.97	5.73	2.73	3.53	5.14	3.96	2.60	4.43
17	Jersey City, N. J.	11.21	11.24	5.42	5.45	(c)	2.15	(d)	e 3.63	2.31	2.28	13.51
18	Louisville, Ky.	12.45	9.26	5.17	4.12	1.51	.74	.74	1.96	.82	2.73	5.74
19	Minneapolis, Minn.	11.04	6.19	4.94	3.65	2.40	1.69	2.09	3.74	4.23	1.34	2.49
20	Providence, R. I.	11.64	9.77	7.88	4.74	4.71	1.04	4.14	4.68	4.18	3.19	2.12
21	Indianapolis, Ind.	11.23	6.37	9.05	4.82	2.33	1.98	3.50	.78	3.96	1.44	3.26
22	Kansas City, Mo.	3.23	14.18	7.39	3.82	1.48	.67	1.71	2.30	2.38	2.06	6.16
23	St. Paul, Minn.	12.52	7.65	7.42	7.20	2.72	2.33	1.31	1.70	3.74	.28	5.89
24	Rochester, N. Y.	10.46	9.13	9.18	4.27	5.34	2.26	2.77	2.05	5.16	3.03	3.54
25	Denver, Colo.	25.08	6.71	5.81	5.06	2.48	1.17	1.64	1.27	3.70	1.45	5.20
26	Toledo, Ohio.	9.77	7.32	5.13	6.17	1.91	8.79	4.26	6.00	3.60	1.53	2.89
27	Allegheny, Pa.	9.30	13.00	5.07	6.45	3.18	1.18	(d)	e 10.25	2.28	3.98	3.41
28	Columbus, Ohio (h)	17.13	7.28	9.56	5.22	4.04	.96	3.82	4.27	4.85	.74	4.93
29	Worcester, Mass.	11.83	11.11	9.33	3.44	4.00	i 2.22	5.72	1.28	4.00	2.17	4.28
30	Syracuse, N. Y.	9.30	5.68	6.57	5.40	2.05	3.01	6.98	1.09	2.80	2.05	5.68
31	New Haven, Conn.	11.77	8.79	11.07	4.66	5.24	1.28	5.53	1.28	4.31	3.56	2.39
32	Paterson, N. J.	9.77	11.83	7.28	5.75	3.16	4.70	2.54	4.84	2.54	2.73	3.50
33	Fall River, Mass.	7.12	9.04	4.94	9.07	4.97	.52	13.62	2.81	1.19	4.57	4.68
34	St. Joseph, Me.	4.24	7.51	6.42	7.26	4.97	2.54	3.82	1.45	2.18	3.15	3.39
35	Omaha, Neb.	9.86	10.61	5.48	6.23	3.37	1.68	3.87	2.44	1.19	1.52	3.12
36	Los Angeles, Cal.	17.61	7.22	8.65	5.24	2.56	.98	.45	2.22	3.96	1.77	5.30
37	Memphis, Tenn.	11.62	10.62	3.44	5.42	.88	.28	1.16	7.02	1.11	.93	4.79
38	Scranton, Pa.	5.75	8.84	5.40	7.49	2.21	5.63	3.48	2.56	1.16	3.83	1.80
39	Lowell, Mass.	9.79	9.95	8.44	3.68	3.41	1.24	9.52	.54	2.38	3.90	2.87
40	Albany, N. Y.	12.45	8.69	9.25	4.17	4.32	2.08	.76	2.95	4.12	2.18	.61
41	Cambridge, Mass.	10.79	10.59	8.58	2.73	4.09	i 3.67	4.03	3.83	3.31	3.31	3.96
42	Portland, Oreg.	16.11	6.84	9.85	8.34	1.04	1.04	2.09	.46	4.29	1.85	3.71
43	Atlanta, Ga.	11.80	9.62	4.30	2.61	1.94	.68	4.59	1.16	1.11	1.60	2.52
44	Grand Rapids, Mich.	8.16	9.90	7.64	3.91	3.73	.96	2.52	2.52	4.25	2.60	3.82
45	Dayton, Ohio.	14.86	6.94	9.91	6.08	6.11	.50	1.49	2.48	4.54	1.40	13.63
46	Richmond, Va.	13.80	7.91	6.96	3.42	2.98	.19	2.85	4.31	1.84	2.22	2.53
47	Nashville, Tenn.	13.88	9.96	5.88	3.34	3.92	1.70	4.77	4.82	2.81	1.75	2.44
48	Seattle, Wash.	10.52	9.35	8.01	12.69	1.67	2.67	1.67	1.84	4.34	1.00	4.17
49	Hartford, Conn. (k)	11.05	10.56	7.41	5.73	5.60	4.05	5.73	11.47	3.01	1.68	3.08
50	Reading, Pa.	7.36	8.80	11.28	9.56	5.64	2.01	2.87	.76	2.68	1.72	3.44
51	Wilmington, Del.	11.90	9.74	5.80	4.02	3.17	4.56	2.63	3.01	2.32	1.08	5.02
52	Camden, N. J.	11.32	10.36	6.45	5.58	3.90	5.02	1.91	2.07	1.91	.88	3.83
53	Trenton, N. J.	12.33	14.14	8.71	5.52	3.36	1.03	10.09	.....	3.79	2.41	12.24
54	Bridgeport, Conn.	7.94	7.28	6.82	5.32	2.99	i .93	5.23	4.39	2.89	2.99	2.80
55	Lynn, Mass.	8.35	8.35	9.04	4.32	4.42	.98	4.42	3.64	5.01	2.55	2.16
56	Oakland, Cal.	13.95	7.53	12.40	8.09	3.54	1.66	.78	.44	7.09	3.21	2.10
57	Lawrence, Mass.	5.27	8.75	7.62	1.86	2.84	4.86	8.99	4.05	1.95	2.92	8.65
58	New Bedford, Mass.	9.04	9.39	9.39	.26	3.96	i 2.15	6.37	4.05	3.79	2.84	4.74
59	Des Moines, Iowa	8.84	9.44	8.69	6.90	1.50	.60	1.65	2.40	2.85	1.95	4.50
60	Springfield, Mass.	12.90	7.36	8.21	4.48	4.37	i 5.86	5.76	.64	4.48	2.56	2.45
61	Somerville, Mass.	11.74	13.86	11.11	2.75	5.12	1.37	3.37	.....	4.24	2.75	4.00
62	Troy, N. Y.	13.86	9.00	9.16	1.57	1.80	1.41	4.07	2.50	1.41	1.80	4.31
63	Hoboken, N. J.	12.04	12.04	7.91	5.89	2.72	1.84	2.72	1.23	1.41	3.25	5.71
64	Evansville, Ind.	13.33	8.13	4.06	3.23	1.98	.52	1.88	1.98	2.40	2.71	5.31
65	Manchester, N. H.	8.58	10.66	5.38	2.64	2.74	.57	7.36	1.32	1.70	6.13	4.06
66	Utica, N. Y.	11.45	10.12	9.30	4.91	3.27	4.23	1.23	1.64	8.17	1.12	5.01
67	Peoria, Ill.	9.64	14.47	8.51	4.25	1.42	.43	2.13	1.13	2.41	1.42	3.83
68	Charleston, S. C.	8.87	4.97	4.51	6.82	2.46	.05	1.03	9.90	2.56	1.28	.92
69	Savannah, Ga.	12.11	9.60	8.51	3.83	1.19	.32	.76	5.27	.69	1.69	2.82

a Deaths not reported.

b Not including deaths from premature birth.

c Included in deaths from all other causes.

d Included in deaths from other diarrheal diseases.

e Including deaths from cholera infantum.

f Including deaths from apoplexy, old age, hydrocephalus, septicæmia, and premature birth.

TABLE VI.—PERCENTAGE OF DEATHS FROM EACH SPECIFIED CAUSE.

Ma- ras- mus and in- an- tion.	Measles.	Ne- phri- tis.	Old age.	Ty- phoid fever.	Mal- arial fever.	Scar- let fever.	Hy- dro- ceph- alus.	Septic- emia.	Croup.	Al- co- hol- ism.	Whoop- ing cough.	Pre- ma- ture birth.	All other causes.	Total.	Mar- ginal num- ber.
3.27	0.90	7.82	2.00	0.83	0.25	0.82	1.32	0.26	0.49	0.68	0.79	1.80	21.90	100.00	1
2.85	.66	4.63	1.88	1.73	.10	2.09	.18	.94	.29	.61	.30	1.04	22.00	100.00	2
3.42	.03	4.92	3.12	3.86	.06	.54	.19	.61	.68	.28	.18	3.01	33.72	100.00	3
4.40	.15	4.72	5.62	1.31	1.48	.38	.15	.77	.49	.25	.56	.95	28.22	100.00	4
4.58	.29	2.67	1.90	1.48	.01	.66	1.41	.55	.24	.61	.68	1.85	25.27	100.00	5
5.22	.05	6.58	3.53	1.51	.47	.24	.21	.49	.50	.30	.19	2.43	28.41	100.00	6
8.78	.04	2.84	4.46	2.14	.04	.65	.07	1.06	.43	.32	.47	1.24	30.80	100.00	7
3.51	1.02	4.32	6.18	1.79	.02	.65	.12	.59	.39	1.06	.86	1.96	22.78	100.00	8
4.21	1.01	4.29	1.80	2.46	.20	.76	.20	1.65	.07	1.83	.70	(a)	24.47	100.00	9
3.32	.93	2.48	4.22	2.02	.13	.22	.02	.27	.48	.27	.02	.2	35.06	100.00	10
3.49	.90	2.59	1.11	5.70	.05	.70	.15	.43	.32	.4	1.71	2.38	28.80	100.00	11
1.99	.22	6.61	5.03	1.96	2.89	.04	.05	.99	.04	.37	.25	1.48	26.49	100.00	12
5.16	.04	3.08	3.39	1.21	.46	.18	.20	.82	.26	.18	.51	.25	29.24	100.00	13
2.08	.68	3.43	1.80	1.22	.00	.94	.03	.75	.10	.39	.23	1.64	29.20	100.00	14
2.61	.45	4.99	3.45	2.80	.81	.31	.12	.08	.28	.28	.20	1.83	29.26	100.00	15
3.75	.13	6.33	1.90	1.45	.35	.75	.37	.97	.07	.39	.46	3.02	15.43	100.00	16
3.17	.26	5.42	(c)	.78	.57	.88	(c)	.7	.68	.34	.65	(c)	30.02	100.00	17
6.37	.26	1.84	4.83	3.47	.03	.09	.28	.71	.62	.14	.14	.26	37.85	100.00	18
4.50	.13	4.81	4.63	3.16	.47	.40	.22	.76	.16	.65	.05	.67	32.06	100.00	19
2.56	.85	6.61	2.28	1.86	.29	.60	.16	.57	.35	.47	1.49	2.02	22.30	100.00	20
4.78	.15	2.25	4.97	2.49	.97	1.13	.39	1.36	.54	.08	.04	7.23	24.90	100.00	21
5.53	.37	1.89	1.48	1.86	.30	.19	.15	1.45	.38	.33	.74	2.45	39.13	100.00	22
4.87	.....	2.89	2.72	1.70	.....	.28	.....	.28	.....	.....	.....	3.85	30.65	100.00	23
2.90	.30	5.98	5.81	1.28	.....	.81	.17	.51	.....	.34	.09	2.43	22.19	100.00	24
2.90	.42	3.93	2.76	2.39	.05	.33	.....	.89	.28	.66	.98	(g)	22.86	100.00	25
7.48	.27	2.13	5.02	2.18	.44	.76	.....	1.09	.11	.06	.60	(g)	22.49	100.00	26
2.89	.43	2.75	2.61	6.45	.....	.57	.06	.81	.62	.....	.43	1.85	22.44	100.00	27
4.34	.29	3.97	5.15	2.06	.07	.22	.....	1.03	.....	.07	.29	3.24	16.47	100.00	28
1.22	.28	4.89	3.78	1.06	.11	.55	.17	.78	(j)	.28	.22	2.72	24.56	100.00	29
2.53	.14	1.71	6.16	1.37	.41	2.60	.56	.27	.....	.21	.14	.27	31.05	100.00	30
2.21	.....	6.47	3.55	1.63	.64	.....	.....	.....	.....	.....	.35	.29	21.38	100.00	31
3.50	1.53	4.46	1.68	2.85	.19	.57	.05	.10	.67	.24	.29	2.49	23.24	100.00	32
5.09	.62	3.17	1.66	.57	.83	.16	.16	.42	.78	.31	.73	2.03	29.94	100.00	33
2.78	.....	2.42	2.91	4.24	.12	.....	.36	1.21	1.94	.36	.85	2.66	37.53	100.00	34
5.48	.93	1.94	5.56	2.19	.25	.34	.34	.50	.....	.76	.67	2.19	30.92	100.00	35
2.62	.12	5.06	3.90	2.44	.06	.18	.18	1.52	1.04	.91	.30	1.89	23.16	100.00	36
2.93	.23	3.58	2.28	1.81	9.57	.09	.19	.93	.19	.37	.05	1.16	29.55	100.00	37
3.72	.....	1.63	1.80	1.45	.12	2.32	.12	.64	.93	.23	.17	1.57	37.05	100.00	38
2.54	1.41	2.92	1.19	.92	.....	.49	.....	.....	.87	.....	.76	1.46	31.82	100.00	39
5.06	.10	3.46	3.86	4.17	.05	.51	.25	.86	.66	.61	.61	.56	27.69	100.00	40
4.56	.52	3.83	2.34	1.30	.....	.52	.39	.65	(j)	.20	1.82	1.89	23.20	100.00	41
1.74	.35	2.78	2.32	2.43	.....	.23	.23	1.16	.23	.58	.81	4.64	26.88	100.00	42
3.19	.53	1.02	1.50	3.72	.82	.53	.....	.34	.92	.19	.29	2.90	42.12	100.00	43
4.25	1.30	1.48	3.99	2.26	.43	.43	.52	.69	2.17	.35	.61	1.22	30.30	100.00	44
3.80	.....	5.86	4.54	2.56	.33	.16	.16	1.16	.08	.25	.16	2.23	10.73	100.00	45
5.45	.....	3.55	2.15	2.34	1.01	.13	.19	.89	.19	.13	.....	.32	34.64	100.00	46
4.87	.53	2.97	3.50	2.65	1.54	.....	.16	1.59	.....	.21	.85	1.70	24.16	100.00	47
3.34	.50	2.34	2.17	4.17	.....	.33	.33	1.17	.50	1.17	.17	.67	25.21	100.00	48
.21	.35	6.22	5.73	2.66	.70	.07	.28	.77	.63	.42	.56	1.89	10.14	100.00	49
4.01	.....	2.10	2.01	2.49	.29	.57	.....	.57	1.15	.10	.19	6.40	24.00	100.00	50
6.18	.08	3.55	2.09	3.55	.31	.08	.23	.54	.62	.08	.39	1.08	27.97	100.00	51
7.49	.....	6.37	.72	2.31	.08	.08	.08	.64	1.35	.16	.16	.80	26.53	100.00	52
3.79	.34	5.95	1.55	2.85	.09	.17	.....	.....	.....	.....	.52	.60	10.52	100.00	53
2.43	.09	5.60	1.68	.75	1.40	.84	.28	1.03	(j)	.....	1.68	2.05	32.59	100.00	54
.....	.69	3.83	5.50	1.28	.29	.29	1.28	.88	.10	1.28	.69	2.95	27.70	100.00	55
2.66	.....	3.88	2.10	2.66	.67	.11	.....	1.11	.22	.11	.11	1.11	24.47	100.00	56
5.19	.32	1.86	1.54	1.62	.....	.16	.08	.....	.....	.08	1.78	1.95	32.09	100.00	57
1.96	.....	1.64	1.81	1.38	.....	.95	.....	.69	(j)	.35	.....	2.58	32.64	100.00	58
2.40	.75	2.70	3.30	1.35	.45	.....	.30	.75	.45	.15	.....	73.60	34.48	100.00	59
3.84	.53	8.95	3.30	1.60	.32	.21	.....	.75	(j)	.85	.21	2.03	18.34	100.00	60
2.87	.12	3.00	3.75	1.87	.....	.37	.....	.50	.....	.....	.25	2.87	24.09	100.00	61
3.91	1.57	2.90	2.66	3.60	.....	.....	.16	.39	.63	.08	.08	1.10	32.03	100.00	62
4.57	.18	3.95	.97	1.58	.18	.88	.....	.53	1.49	.53	.09	.70	27.59	100.00	63
6.25	.21	2.40	1.46	4.06	.10	.....	.31	.62	.52	.31	.42	4.27	33.54	100.00	64
4.06	.47	2.74	2.26	1.13	.....	.28	.47	.75	.94	.19	1.42	3.30	30.85	100.00	65
2.86	.....	1.64	3.89	1.02	.....	.72	.....	.92	.31	.31	.10	.61	32.21	100.00	66
1.28	.11	1.99	6.10	1.42	.71	.28	.....	1.70	.28	.85	.85	.43	34.33	100.00	67
4.00	.72	8.15	2.62	3.13	1.80	.05	.21	.56	.....	.26	.92	1.49	32.72	100.00	68
5.52	.94	1.88	3.39	1.19	5.58	.32	.....	.75	.06	.38	.06	3.20	35.45	100.00	69

g Included in stillbirths.

h Data do not include 393 deaths in hospitals, asylums, and public institutions.

i Including deaths from croup.

j Included in deaths from diphtheria.

k Data do not include deaths of nonresidents who died in hospitals.

l Including stillbirths.

TABLE VI.—PERCENTAGE OF DEATHS FROM EACH SPECIFIED CAUSE—Concluded.

Mar- ginal num- ber.	Cities.	Con- sump- tion.	Pneu- monia.	Heart dis- ease.	Vio- lence	Apo- plexy	Diph- theria.	Diarrheal diseases.		Can- cer.	Bron- chi- tis	Men- ingitis and cere- bro- spinal men- ingitis
								Chol- era in- fan- tum.	Other.			
70	Salt Lake City, Utah.	8.01	7.06	6.59	5.49	2.67	1.10	5.02	4.71	3.30	2.51	4.24
71	San Antonio, Tex.	8.47	4.30	1.25	3.89	1.39	.55	2.64	5.48	2.22	.97	1.46
72	Duluth, Minn.	5.87	9.15	1.56	11.05	1.21	.35	5.53		2.76	1.38	2.25
73	Erie, Pa.	10.14	9.45	10.00	4.80	4.25	a 2.19	2.46	3.56	3.15	2.19	3.29
74	Elizabeth, N. J.	8.75	10.62	6.30	5.72	3.73	2.92	4.20	2.10	1.05	3.03	4.44
75	Wilkesbarre, Pa.	5.35	13.08	4.50	4.22	2.67	2.53	4.78	.70	3.08	1.69	2.53
76	Kansas City, Kans.	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
77	Harrisburg, Pa.	8.64	4.96	9.21	6.66	4.11	2.83	2.27	.99	2.41	.43	4.67
78	Portland, Me.	10.60	8.57	7.44	4.51	7.65	1.58	.34	4.62	4.62	1.13	4.85
79	Yonkers, N. Y.	13.60	10.16	8.77	5.08	4.32	.51	2.29	7.62	2.16	2.80	7.12
80	Norfolk, Va.	14.59	6.36	6.27	1.78	1.22	.65	1.59	3.18	1.40	2.62	1.68
81	Waterbury, Conn.	5.99	8.92	6.24	5.86	3.18	.76	11.59	2.42	1.91	4.08	1.15
82	Holyoke, Mass.	12.98	5.71	5.71	4.99	3.14	.86	7.70	4.56	3.00	3.83	3.14
83	Fort Wayne, Ind.	12.42	9.60	4.97	5.63	2.32	.99	.83	1.65	6.46	1.16	3.97
84	Youngstown, Ohio.	6.48	10.24	8.13	5.87	2.11	1.05	5.57	3.61	1.66	4.07	3.77
85	Houston, Tex.	7.54	1.88	3.37	3.27	.70	.30	3.27	7.74	.70	.50	1.19
86	Covington, Ky.	10.44	8.27	6.61	2.17	1.34	a .72	2.27	3.72	2.48		5.48
87	Akron, Ohio.	7.28	6.63	8.25	8.25	1.78	.97	1.62	1.78	4.05	1.78	8.09
88	Dallas, Tex.	10.83	8.29	4.86	6.30	1.66	.99	2.76	5.97	.65	1.66	1.77
89	Saginaw, Mich.	7.92	9.21	7.37	5.71	2.89	.92	1.84	1.47	4.60	2.21	3.31
90	Lancaster, Pa.	7.60	10.40	8.53	1.87	4.93	a 5.07	2.13	1.87	2.13	2.00	11.60
91	Lincoln, Nebr.	11.14	11.96	9.51	2.72	1.63	1.09	5.71	.82	1.36	.81	5.71
92	Brockton, Mass.	14.41	10.04	7.42	3.06	3.93	1.31	3.28	2.18	4.37	2.40	4.37
93	Binghamton, N. Y.	11.03	6.37	8.49	3.68	3.82	1.27	1.84	4.10	3.68	2.55	1.98
94	Augusta, Ga.	14.29	7.92	7.92	2.34	.56	1.11	3.57	13.95	1.67	.78	2.46
95	Pawtucket, R. I.	12.26	6.29	8.96	3.77	3.62	1.67	6.45	.79	2.20	4.56	4.40
96	Altoona, Pa.	6.68	7.95	4.77	7.79	3.34	3.34	4.13	2.38	2.54	1.59	3.02
97	Wheeling, W. Va.	13.65	8.27	6.92	6.35	2.89	.77	1.35	4.81	4.23	2.31	4.23
98	Mobile, Ala.	15.98	6.26	3.56	5.94	3.35	.11	.86	6.16	2.05	1.40	2.70
99	Birmingham, Ala.	15.19	9.00	5.20	6.19	1.27	.28	6.89	8.16	1.83	1.55	4.22
100	Little Rock, Ark.	13.92	6.68	3.45	4.68	.78	.22	1.34	6.68	1.34	.78	7.24
101	Springfield, Ohio.	12.00	6.48	8.96	3.05	3.24	.38	2.67	.38	4.19	4.38	7.62
102	Galveston, Tex.	10.42	2.73	3.60	4.09	1.61	.75		1.24	2.11	.50	4.59
103	Tacoma, Wash.	12.88	7.06	6.44	8.28	3.68	.62			6.44	.92	1.23
104	Haverhill, Mass.	10.86	9.92	10.49	6.37	3.00	2.62	3.93	.56	4.49	3.56	3.37
105	Spokane, Wash.	10.18	11.15	6.07	5.87	.20	a 1.17	6.26	3.72	2.94	.78	3.52
106	Terre Haute, Ind. (f)	3.44	4.18	6.39	9.09	.98	2.46	1.72	1.47	2.95	.74	5.40
107	Dubuque, Iowa.	6.93	8.54	6.93	3.93		1.85	3.70	1.15	8.46	3.98	6.24
108	Quincy, Ill.	11.85	7.83	6.22	8.63	1.61	.60	4.82	2.41	2.01	4.22	3.82
109	South Bend, Ind.	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
110	Salem, Mass.	8.57	6.88	8.43	3.23	3.79	.84	7.30	3.65	4.22	3.37	4.07
111	Johnstown, Pa.	6.50	9.08	7.40	9.21	1.81	1.06	7.58	1.26	2.89	.72	1.44
112	Elmira, N. Y.	12.34	6.73	5.05	1.12	5.42	.75	.55	.19	3.55	4.48	3.18
113	Allentown, Pa.	8.14	5.23	11.82	6.78	6.40	3.68	4.84	.78	2.13	.78	4.65
114	Davenport, Iowa.	8.33	5.13	8.12	3.21	4.49		2.56	.21	6.20	4.06	6.62
115	McKeesport, Pa.	5.72	12.55	3.69	10.52	1.48	4.61	4.98	4.80	1.48	2.40	4.24
116	Springfield, Ill.	14.07	3.94	6.94	9.19	2.06	4.13	4.88	1.88	3.19	2.25	4.69
117	Chelsea, Mass. (g)	1.42	11.64	8.80		3.62	1.57	2.83	.94	5.19	1.42	1.73
118	Malden, Mass.	11.23	7.49	11.45	1.76	3.53	1.96	11.68		3.08	3.30	3.30
119	Topeka, Kans.	10.56	7.66	8.28	7.87	.41	.83	2.49	.41	2.49	.21	2.49
120	Sioux City, Iowa.	4.79	4.47	4.47	5.43	.96	1.92		2.56	3.19	2.24	.96
121	Knoxville, Tenn.	17.15	10.22	5.29	4.38	1.10		1.46	3.83	1.64	.73	6.93
122	Chattanooga, Tenn.	17.18	12.11	6.06	4.42	1.15	.49	.82	4.58	1.47	1.81	8.51
123	Superior, Wis.	5.40	12.50	6.82	8.52	1.42	1.42	9.38		3.13	.85	1.70
124	Rockford, Ill.	13.69	7.61	7.61	3.80	2.28	3.04	1.90	3.04	4.56	4.94	7.23
125	Taunton, Mass.	10.18	10.94	7.60	.61	4.10	a 1.22	3.04	4.56	2.43	1.82	1.82
126	Joliet, Ill.	9.71	9.24	8.29	10.19	1.90	1.18	4.97	2.84	1.18	1.90	5.69
127	Canton, Ohio.	8.06	8.39	6.45	1.94	2.58	6.77	1.94	.97	3.23	.97	2.58
128	Butte, Mont.	4.61	26.81	6.42	10.86	1.48	.33	3.13	.16	.82	2.14	2.63
129	Auburn, N. Y.	8.21	10.06	11.70	.20	7.19	3.49	3.29	1.85	5.96	1.23	3.08

a Including deaths from croup.

b Included in deaths from diphtheria.

c Deaths not reported.

d Not including deaths from premature birth.

TABLE VI.—PERCENTAGE OF DEATHS FROM EACH SPECIFIED CAUSE—Concluded.

Marasmus and inanition.	Measles.	Ne-phritis.	Old age.	Ty-phoid fever.	Mal-arial fever.	Scar-let fever.	Hy-drocephalus.	Sep-ticæmia.	Croup.	Al-co-holism.	Whoop-ing cough.	Pre-mature birth.	All other causes.	Total.	Marginal number.
3.77	0.47	6.59	10.99	1.73	0.16	1.88	0.16	1.41	.....	0.79	1.10	3.92	16.33	100.00	70
3.40	.28	2.36	2.96	1.60	1.18	.14	.....	.90	.....	.....	.14	2.15	52.25	100.00	71
2.07	.....	.35	1.38	3.45	.....	.....	.17	.17	0.17	.35	.52	7.25	43.01	100.00	72
5.48	.14	4.25	4.66	2.46	.....	1.23	.14	.82	(b)	.....	.41	(c)	24.93	d100.00	73
4.32	.23	6.42	1.28	1.05	.12	1.05	.58	1.40	.47	.58	.70	2.68	26.26	100.00	74
3.80	.14	3.66	.28	2.11	.....	.42	.14	.28	.42	.42	.14	2.53	40.23	100.00	75
(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(e)	(c)	(c)	(c)	(c)	(c)	(c)	76
3.68	.....	2.83	3.40	2.83	.....	.28	.....	.43	.14	.....	.71	2.97	35.55	100.00	77
2.59	.56	5.19	4.17	1.69	.....	.34	.....	1.35	.68	.45	1.13	1.24	24.80	100.00	78
2.54	.....	5.84	.89	.64	.25	.25	.13	.89	.25	.13	.....	2.03	21.73	100.00	79
1.40	.....	3.84	2.53	3.37	2.99	.19	.09	1.50	.28	.37	1.59	2.34	38.17	100.00	80
.76	.25	3.80	1.66	1.91	1.15	.76	.13	.13	.13	.64	.....	.13	37.45	100.00	81
4.56	.....	1.71	1.14	1.57	.14	.43	.43	.57	.28	.....	1.43	2.57	29.53	100.00	82
9.60	.....	4.97	6.13	2.48	1.65	.16	.....	1.99	.....	.....	.50	(c)	22.52	d100.00	83
3.77	.....	3.01	3.16	8.13	.30	.....	.....	1.21	.30	.30	.75	(e)	26.51	d100.00	84
3.67	.30	2.08	2.48	1.29	7.24	2.18	.10	1.09	.60	.60	.79	.....	47.12	100.00	85
1.55	.10	4.13	1.03	1.76	.21	.....	.....	1.08	(b)	.....	.....	2.27	44.42	100.00	86
2.75	.....	4.86	5.66	2.10	.....	.81	.....	1.30	2.59	.....	.81	(c)	28.64	d100.00	87
5.19	1.33	2.21	1.10	2.43	1.44	.22	.....	.77	.22	.11	.22	1.55	37.46	100.00	88
3.50	.37	1.29	3.68	2.03	.37	.19	.....	2.21	.....	.....	2.03	3.31	34.07	100.00	89
4.13	.....	3.07	4.67	3.73	.....	.....	.....	.93	(b)	.27	.....	.93	24.14	100.00	90
.82	.27	5.16	3.80	2.45	.....	1.09	.....	.27	.27	.27	.54	2.17	30.43	100.00	91
3.93	.....	2.62	3.98	1.53	.....	.22	1.09	.22	1.09	.22	.87	2.84	24.67	100.00	92
1.41	.....	3.54	6.22	1.56	.....	.57	.....	1.41	.42	.28	.85	.14	34.79	100.00	93
2.46	.....	3.46	.67	2.01	5.25	.11	.22	1.34	.....	.33	.56	1.79	26.23	100.00	94
1.10	.....	4.72	2.67	1.57	.....	.16	.79	.16	.63	.....	.47	.16	32.70	100.00	95
6.20	.32	3.66	2.86	2.07	.16	.48	.16	.95	.....	.48	.48	3.97	30.68	100.00	96
2.50	.19	4.42	2.89	5.19	.19	.19	.....	.77	.38	1.15	.77	.58	25.19	100.00	97
4.43	.11	6.80	3.46	2.27	2.27	.....	.....	1.84	.11	.43	.....	.86	29.05	100.00	98
5.49	.28	1.69	1.69	2.11	.84	.14	1.13	2.95	.28	.14	.98	.84	21.66	100.00	99
2.34	.22	1.00	1.45	2.34	.78	.....	.11	1.45	.11	.11	.11	2.78	40.09	100.00	100
1.71	.....	6.48	6.48	4.57	.....	.95	.....	.76	.76	.....	1.52	2.86	20.57	100.00	101
4.34	.50	4.72	3.10	3.97	.99	.99	.12	.87	.87	.....	.....	.....	47.89	100.00	102
4.91	.....	2.76	1.53	1.53	.....	1.53	.....	.31	.....	.....	.....	3.07	36.81	100.00	103
2.81	.....	4.12	4.12	.94	.....	.37	.....	.75	.56	1.12	1.69	1.50	22.85	100.00	104
2.74	.78	3.13	2.74	3.33	.78	.39	.20	2.15	(b)	.39	.59	.78	30.14	100.00	105
5.16	.....	2.70	3.19	5.16	.74	.....	.....	.49	.74	.25	.....	3.19	39.56	100.00	106
2.08	.92	1.15	6.70	1.39	.23	.69	.....	1.62	.92	.....	.....	.....	37.64	100.00	107
2.61	.....	3.41	4.02	1.81	.....	.60	.....	1.20	1.41	.20	.20	2.61	27.91	100.00	108
(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	109
5.76	.28	3.37	2.95	.98	.....	1.13	.....	.56	.42	.14	.42	2.95	26.69	100.00	110
7.04	.72	1.81	3.07	5.05	.....	.36	.....	.90	1.26	.18	.72	1.81	28.16	100.00	111
.56	.....	8.22	3.92	2.06	.....	.75	.19	.56	.75	.37	1.49	3.74	34.02	100.00	112
2.91	.....	2.13	1.36	4.26	.....	1.16	.....	.39	.78	.....	.58	5.04	26.16	100.00	113
3.21	.....	.86	8.12	3.21	.21	.21	.64	.64	.....	.....	.21	2.35	31.41	100.00	114
3.69	.....	2.58	.18	2.58	.....	.55	.....	1.29	.18	.....	1.48	4.06	26.94	100.00	115
2.63	.....	2.68	4.50	3.75	.....	.....	.....	.75	.75	.38	.....	.....	27.39	d100.00	116
3.14	.31	.....	1.89	1.57	.....	.47	.....	.16	.47	.....	.79	2.04	50.00	100.00	117
3.63	.44	5.73	5.07	.88	.....	.66	.....	.66	.....	.....	.....	1.32	23.57	100.00	118
.41	.41	1.24	2.69	5.17	1.24	.21	.21	.21	1.45	.....	.41	.41	42.24	100.00	119
.32	.....	1.60	1.60	.96	.....	.32	.....	.....	.32	.32	.....	A 7.03	56.55	A100.00	120
.73	4.38	2.37	2.74	2.37	.18	.37	.....	.91	.73	.55	.18	.37	31.39	100.00	121
4.75	.33	1.80	2.78	3.44	.33	.16	.16	.33	.16	.....	.49	1.47	25.70	100.00	122
.28	.....	.....	1.99	2.84	.....	1.42	.....	.....	1.14	.....	.85	2.56	37.78	100.00	123
1.90	.76	3.04	5.32	1.14	.76	.....	.....	.38	.76	.....	.38	.....	25.86	100.00	124
4.71	.....	2.89	5.62	1.06	.31	.31	.15	.61	(b)	.15	.61	.61	34.65	100.00	125
2.37	.24	.95	3.79	1.66	.....	.24	.....	1.42	1.90	.24	.95	.....	29.15	100.00	126
2.58	.....	1.61	5.16	3.87	.....	.....	.....	1.61	1.94	.....	1.61	.97	36.77	100.00	127
2.63	.82	1.97	.82	1.81	.....	.49	.....	1.32	.16	1.81	.16	2.14	26.48	100.00	128
2.26	.....	3.70	4.11	1.44	.41	.41	.20	.62	.20	.41	.20	2.26	27.52	100.00	129

c Included in stillbirths.

f Data are for 84 months.

g Data include 88 deaths in naval, marine, and soldiers' home hospitals.

A Including stillbirths.

TABLE VII.—DEATH RATE PER 1,000 POPULATION.

[The population figures given in the first column of this table are in each case the estimates of the local health department, and are the basis of the official death rate. The figures given in the third column are the returns of the Twelfth United States Census, June 1, 1900, and were not available until after the official death rates were made.]

Marginal number	Cities.	Population estimated by health department.	Official death rate (not including stillbirths).	Population at Twelfth Census, June 1, 1900.	Death rate on basis of population at Twelfth Census (not including stillbirths).
1	New York, N. Y.	3,560,063	18.41	3,437,202	19.01
2	Chicago, Ill.	1,750,000	14.57	1,698,575	15.01
3	Philadelphia, Pa.	1,266,832	a 18.78	1,293,697	18.96
4	St. Louis, Mo.	623,000	16.09	575,238	17.43
5	Boston, Mass.	555,057	20.12	560,892	19.91
6	Baltimore, Md.	541,000	18.77	508,957	19.95
7	Cleveland, Ohio	395,000	14.07	381,768	14.55
8	Buffalo, N. Y.	370,000	a 12.60	352,219	13.92
9	San Francisco, Cal.	360,000	a 19.74	342,782	a 20.73
10	Cincinnati, Ohio.	405,000	14.81	325,902	18.41
11	Pittsburg, Pa.	306,115	19.67	321,616	18.72
12	New Orleans, La.	300,000	26.31	287,104	27.49
13	Detroit, Mich.	300,000	15.13	285,704	15.89
14	Milwaukee, Wis.	285,000	13.48	285,315	13.47
15	Washington, D. C.	287,462	20.96	278,718	21.62
16	Newark, N. J.	240,000	18.90	246,070	18.44
17	Jersey City, N. J.	200,225	19.25	206,433	18.67
18	Louisville, Ky.	226,678	15.52	204,731	17.19
19	Minneapolis, Minn.	225,602	b 9.23	202,718	11.08
20	Providence, R. I.	168,000	18.82	175,597	18.01
21	Indianapolis, Ind.	200,000	11.94	169,164	15.22
22	Kansas City, Mo.	200,000	13.47	163,762	16.45
23	St. Paul, Minn.	200,000	b 7.85	163,632	10.79
24	Rochester, N. Y.	180,000	a 12.70	162,435	14.42
25	Denver, Colo.	170,000	a 12.56	133,859	a 15.95
26	Toledo, Ohio.	150,000	a 12.21	131,822	a 13.90
27	Allegheny, Pa.	135,000	15.61	129,896	16.23
28	Columbus, Ohio	140,000	c 9.71	125,560	c 10.63
29	Worcester, Mass.	113,273	15.89	118,421	15.20
30	Syracuse, N. Y.	130,000	11.25	106,374	13.49
31	New Haven, Conn.	115,000	14.93	108,027	15.89
32	Paterson, N. J.	119,176	17.51	105,171	19.84
33	Fall River, Mass.	103,000	18.68	104,863	18.35
34	St. Joseph, Mo.	85,000	9.72	102,979	8.02
35	Omaha, Nebr.	140,000	8.48	102,555	11.57
36	Los Angeles, Cal.	103,000	15.93	102,479	16.01
37	Memphis, Tenn.	100,000	21.52	102,320	21.03
38	Scranton, Pa.	125,000	13.78	102,026	16.88
39	Lowell, Mass.	90,114	20.50	94,969	19.46
40	Albany, N. Y.	100,000	19.68	94,151	20.90
41	Cambridge, Mass.	92,520	16.63	91,886	16.75
42	Portland, Oreg.	96,600	8.93	90,426	9.54
43	Atlanta, Ga.	125,000	16.54	89,872	23.01
44	Grand Rapids, Mich.	90,000	12.80	87,565	13.16
45	Dayton, Ohio.	85,000	14.25	85,333	14.19
46	Richmond, Va.	101,560	15.55	85,060	18.57
47	Nashville, Tenn.	110,834	17.03	80,865	23.34
48	Seattle, Wash.	75,000	7.99	80,671	7.43
49	Hartford, Conn.	76,000	d 18.82	79,850	d 17.91
50	Reading, Pa.	78,000	13.41	78,961	13.25
51	Wilmington, Del.	73,500	17.61	76,508	16.91
52	Camden, N. J.	76,220	16.47	75,865	16.58
53	Trenton, N. J.	66,566	17.43	73,307	15.82
54	Bridgeport, Conn.	65,000	16.48	70,996	15.09
55	Lynn, Mass.	66,703	15.26	68,513	14.86
56	Oakland, Cal.	75,000	12.04	66,960	13.49
57	Lawrence, Mass.	59,072	20.89	62,559	19.73
58	New Bedford, Mass.	60,000	19.35	62,442	18.59
59	Des Moines, Iowa.	78,000	e 8.55	62,139	e 10.73
60	Springfield, Mass.	58,266	16.10	62,059	15.11
61	Somerville, Mass.	60,000	13.35	61,643	12.99
62	Troy, N. Y.	65,000	19.65	60,651	21.65
63	Hoboken, N. J.	64,000	17.78	59,364	19.17
64	Evansville, Ind.	70,000	13.71	59,007	16.27

a Not including deaths from premature birth.

b Not including deaths from violence and premature birth.

c Not including 393 deaths in hospitals, asylums, and public institutions.

d Not including deaths of nonresidents who died in hospitals.

e Including stillbirths.

TABLE VII.—DEATH RATE PER 1,000 POPULATION—Concluded.

Marginal number.	Cities.	Population estimated by health department.	Official death rate (not including stillbirths).	Population at Twelfth Census, June 1, 1900.	Death rate on basis of population at Twelfth Census (not including stillbirths).
65	Manchester, N. H.	60,000	17.67	56,987	18.60
66	Utica, N. Y.	55,000	17.78	56,383	17.35
67	Peoria, Ill.	50,000	14.10	56,100	12.57
68	Charleston, S. C.	65,165	29.92	55,807	34.94
69	Savannah, Ga.	57,000	27.96	54,244	29.39
70	Salt Lake City, Utah	70,000	9.10	53,531	11.90
71	San Antonio, Tex.	63,000	22.87	53,321	27.02
72	Duluth, Minn.	60,000	9.65	52,969	10.93
73	Erie, Pa.	59,000	a 12.37	52,733	a 13.84
74	Elizabeth, N. J.	50,000	17.14	52,130	16.44
75	Wilkesbarre, Pa.	55,000	12.93	51,721	13.75
76	Kansas City, Kans.	(b)	(b)	51,418	(b)
77	Harrisburg, Pa.	52,000	13.58	50,167	14.07
78	Portland, Me.	50,000	17.74	50,145	17.69
79	Yonkers, N. Y.	43,000	18.30	47,931	16.42
80	Norfolk, Va.	65,000	16.45	46,624	22.93
81	Waterbury, Conn.	50,000	15.70	45,859	17.12
82	Holyoke, Mass.	44,982	15.58	45,712	15.34
83	Fort Wayne, Ind.	50,000	a 12.08	45,115	a 13.39
84	Youngstown, Ohio	60,000	a 11.07	44,885	a 14.79
85	Houston, Tex.	70,000	14.40	44,633	22.68
86	Covington, Ky.	55,000	17.60	42,938	22.54
87	Akron, Ohio	40,000	a 15.45	42,728	a 14.46
88	Dallas, Tex.	55,000	16.45	42,638	21.23
89	Saginaw, Mich.	50,000	10.86	42,345	12.82
90	Lancaster, Pa.	43,116	17.39	41,459	18.09
91	Lincoln, Nebr.	60,000	6.13	40,169	9.16
92	Brockton, Mass.	38,759	11.82	40,063	11.43
93	Binghamton, N. Y.	45,000	15.71	39,647	17.83
94	Augusta, Ga.	55,000	16.29	39,441	22.72
95	Pawtucket, R. I.	36,000	17.67	39,231	16.21
96	Altoona, Pa.	43,000	14.63	38,975	16.14
97	Wheeling, W. Va.	40,000	13.00	38,878	13.38
98	Mobile, Ala.	31,076	29.80	38,469	24.07
99	Birmingham, Ala.	35,000	20.31	38,415	18.51
100	Little Rock, Ark.	40,000	22.45	38,307	23.44
101	Springfield, Ohio	45,000	11.67	38,253	13.72
102	Galveston, Tex.	60,000	13.43	37,789	21.33
103	Tacoma, Wash.	50,000	6.52	37,714	8.64
104	Haverhill, Mass.	37,348	14.30	37,175	14.36
105	Spokane, Wash.	40,000	12.78	36,848	13.87
106	Terre Haute, Ind. (c)	45,000	9.04	36,673	11.10
107	Dubuque, Iowa.	45,000	9.62	36,297	11.93
108	Quincy, Ill.	43,000	11.58	36,252	13.74
109	South Bend, Ind.	(b)	(b)	35,999	(b)
110	Salem, Mass.	36,000	19.78	35,956	19.80
111	Johnstown, Pa.	35,000	15.83	35,936	15.42
112	Elmira, N. Y.	40,000	13.38	35,672	15.00
113	Allentown, Pa.	40,000	12.90	35,416	14.57
114	Davenport, Iowa	40,000	11.70	35,254	13.28
115	McKeesport, Pa.	35,500	15.27	34,227	15.84
116	Springfield, Ill.	42,000	a 12.69	34,159	a 15.60
117	Chelsea, Mass.	34,235	d 18.58	34,072	d 18.67
118	Malden, Mass.	33,000	13.76	33,664	13.49
119	Topeka, Kans.	35,000	13.80	33,608	14.37
120	Sioux City, Iowa	45,000	e 6.98	33,111	e 9.45
121	Knoxville, Tenn.	44,000	12.45	32,637	16.79
122	Chattanooga, Tenn.	40,000	15.28	32,490	18.81
123	Superior, Wis.	35,000	10.06	31,091	11.32
124	Rockford, Ill.	35,000	e 7.77	31,051	8.47
125	Taunton, Mass.	28,167	23.36	31,036	21.20
126	Joliet, Ill.	40,000	10.55	30,720	13.74
127	Canton, Ohio.	40,000	7.75	30,667	10.11
128	Butte, Mont.	50,000	12.16	30,470	19.95
129	Auburn, N. Y.	35,000	13.91	30,345	16.06

a Not including deaths from premature birth.

b Not reported.

c Data are for 8½ months.

d Including 88 deaths in naval, marine, and soldiers' home hospitals.

e Including stillbirths.

TABLE VIII.—AREA OF PUBLIC PARKS, AND OF STREETS PAVED, BY KIND OF PAVEMENT.

Marginal number.	Cities.	Public parks (acres).		Square yards of streets paved with—		
		Owned by city.	Other.	Cobblestones.	Granite blocks.	Bricks.
1	New York, N. Y.	6,909.00	.....	4,467,640	9,275,200	565,680
2	Chicago, Ill.	2,151.49	.....	45,800	595,400	590,200
3	Philadelphia, Pa.	4,044.09	.....	2,317,717	5,775,330	1,936,965
4	St. Louis, Mo.	2,178.59	.....	.....	1,233,859	496,207
5	Boston, Mass.	2,618.06	.....	11,331	1,912,176	5,375
6	Baltimore, Md.	1,138.01	3.50	7,463,280	727,173	17,447
7	Cleveland, Ohio	1,826.19	.....	473	.....	1,173,000
8	Buffalo, N. Y.	1,025.50	.....	.....	.....	121,692
9	San Francisco, Cal.	1,192.67	.....	433,849	.....	.....
10	Cincinnati, Ohio.	589.00	.....	1,213,000	975,208	435,401
11	Pittsburg, Pa.	890.00	.....	1,260,000	960,000	.....
12	New Orleans, La.	562.66	220.00	666,000	469,000	129,000
13	Detroit, Mich.	1,056.61	.....	39,604	65,320	598,971
14	Milwaukee, Wis.	485.03	.....	.....	252,621	37,540
15	Washington, D. C.	98	3,596.27	251,646	567,200	13,903
16	Newark, N. J.	19.18	336.25	286,387	974,266	79,411
17	Jersey City, N. J.	18.00	.....	.....	41,301	9,286
18	Louisville, Ky.	1,350.00	20.00	211,200	946,490	928,560
19	Minneapolis, Minn.	1,558.28	.....	.....	153,984	79,746
20	Providence, R. I.	543.68	.....	82,047	516,287	7,421
21	Indianapolis, Ind.	1,235.00	24.00	.....	.....	405,328
22	Kansas City, Mo.	279.13	.....	.....	49,841	609,356
23	St. Paul, Minn.	599.42	.....	1,706	15,506	64,213
24	Rochester, N. Y.	658.85	.....	26,931	.....	119,313
25	Denver, Colo.	571.00	.....	.....	488,625	720,777
26	Toledo, Ohio.	808.75	.....	292,720	38,638	223,540
27	Allegheny, Pa.	350.00	.....	60,000	38,958	1,609,274
28	Columbus, Ohio	196.00	912.00	340	230,920	4,050
29	Worcester, Mass.	386.86	.....	.....	.....	165,437
30	Syracuse, N. Y.	249.02	.....	3,816	14,900	86,829
31	New Haven, Conn.	1,100.00	.....	22,000	.....	73,499
32	Paterson, N. J.	96.42	.....	8,700	160,512	8,178
33	Fall River, Mass.	89.32	.....	.....	128,758	233,068
34	St. Joseph, Mo.	27.00	.....	.....	43,971	11,401
35	Omaha, Nebr.	598.12	.....	.....	74,821	127,442
36	Los Angeles, Cal.	3,720.04	.....	176,302	26,490	30,827
37	Memphis, Tenn.	18.85	.....	67,120	286,885	2,000
38	Scranton, Pa.	97.17	.....	.....	528,406	281,101
39	Lowell, Mass.	124.50	.....	391,031	155,575	10,560
40	Albany, N. Y.	470.00	.....	.....	117,765	16,405
41	Cambridge, Mass.	284.93	.....	.....	929,456	36,000
42	Portland, Oreg.	205.29	(b)	.....	.....	64,275
43	Atlanta, Ga.	146.00	.....	13,288	.....	302,673
44	Grand Rapids, Mich.	136.26	.....	.....	20,466	12,000
45	Dayton, Ohio.	4.00	.....	.....	484,796	39,078
46	Richmond, Va.	372.50	9.00	.....	63,715	50,430
47	Nashville, Tenn.	8.40	.....	.....	12,810	.....
48	Seattle, Wash.	416.35	25.00	.....	5,500	.....
49	Hartford, Conn.	512.85	14.44	.....	187,634	196,613
50	Reading, Pa.	186.55	.....	262,494	124,200	23,800
51	Wilmington, Del.	269.18	41.00	.....	22,829	120,997
52	Camden, N. J.	4.50	.....	142,700	24,117	7,925
53	Trenton, N. J.	150.00	.....	2,579	59,840	2,493
54	Bridgeport, Conn.	230.63	15.00	.....	.....	.....
55	Lynn, Mass.	2,463.75	.....	.....	.....	.....
56	Oakland, Cal.	182.00	180.00	.....	77,587	.....
57	Lawrence, Mass.	129.33	.75	.....	44,806	.....
58	New Bedford, Mass.	227.00	.....	202,012	.....	1,522,365
59	Des Moines, Iowa.	468.20	.....	.....	48,543	40,322
60	Springfield, Mass.	484.61	.....	50,790	173,000	.....
61	Somerville, Mass.	51.00	.70	137,500	8,407	91,861
62	Troy, N. Y.	115.00	.....	.....	296,885	541,233
63	Hoboken, N. J.	9.00	.....	.....	71,100	.....
64	Evansville, Ind.	98.00	.....	2,790	5,046	1,788
65	Manchester, N. H.	153.00	.....	2,067	20,729	522,649
66	Utica, N. Y.	10.96	.....	16,690	173,986	.....
67	Peoria, Ill.	339.16	.....	85,118	58,302	23,212
68	Charleston, S. C.	606.79	.....	177,598	8,274	.....
69	Savannah, Ga.	65.92	.....	.....	.....	.....
70	Salt Lake City, Utah	110.00	.....	.....	4,918	.....
71	San Antonio, Tex.	821.63	.....	86,371	34,748	124,750
72	Duluth, Minn.	178.00	.....	12,672	12,667	92,692
73	Erle, Pa.	35.00	.....	14,054	4,50	318,972
74	Elizabeth, N. J.	20.42	.....	.....	.....	.....
75	Wilkesbarre, Pa.	39.26	.....	.....	.....	.....
76	Kansas City, Kans.	11.00	.....	.....	.....	.....

a Not including streets in territory annexed during year.

b Not reported.

TABLE VIII.—AREA OF PUBLIC PARKS, AND OF STREETS PAVED, BY KIND OF PAVEMENT.

Square yards of streets paved with—					Total square yards of streets paved.	Square yards of streets unpaved.	Marginal number.
Wooden blocks.	Asphalt and asphalt blocks.	Macadam.	Gravel.	All other kinds of pavements.			
1,408	4,821,600	13,129,600	239,360	57,800	32,500,488	8,712,000	1
15,264,200	1,572,000	7,268,000		113,593	25,393,400	56,092,600	2
	3,893,985	2,022,182		2,539,696	16,059,772	8,600,000	3
148,007	301,853	5,558,620			10,278,244	11,089,742	4
	225,811	5,248,415	1,518,818		8,916,026	322,233	5
	400,961	12,243	116,160		8,737,254	1,000,000	6
7,300	212,900			2,268,840	3,637,513	7,075,200	7
742	4,007,454	59,517		2,112,373	6,301,778	6,009,200	8
		5,766,487		3,311,028	9,510,964	6,896,582	9
2,300	418,811	3,139,288	26,000		6,210,003	3,912,347	10
	1,090,000	470,000		180,000	3,960,000	3,900,000	11
1,000	402,000	454,000	806,000	722,000	3,649,000	8,800,000	12
3,721,717	503,397	314,280		3,147	5,246,436	4,000,000	13
1,427,627	251,856	11,890	6,091,113		8,072,537	5,183,402	14
	3,027,788	787,741	400,000		5,048,277	946,653	15
	616,071	238,234			2,194,369	2,798,400	16
	232,789	296,496		1,302,869	1,884,941	1,575,802	17
	237,136	2,269,000	8,470		4,600,956	1,267,200	18
1,036,191	199,978	81,778			1,551,627	9,715,200	19
	80,792	2,042,848	510,712	8,342	3,248,149	194,875	20
218,768	718,784	58,453	1,283,744	19,360	2,704,437	2,640,000	21
78,263	1,462,674	949,194			3,149,318	4,679,900	22
569,563	297,278	232,010	2,405	29,684	1,202,364	9,058,135	23
17,377	687,063	357,909	244,435	559,647	2,012,675	3,139,819	24
	435,636	14,140		65,086	514,962	30,754,471	25
277,762	397,519	12,422			1,897,105	3,170,000	26
	481,139			419,606	1,455,643	1,760,000	27
	502,275	65,941		543,950	2,820,398	6,000,000	28
	7,820	633,600	1,500,000		2,376,730	728,640	29
	484,353	24,400		142,996	817,186	2,708,000	30
	69,518	984,798		88,283	1,198,144	2,345,153	31
	37,990	1,018,000		64,500	1,215,389	2,790,000	32
	5,700	681,777	1,196,615		2,033,304	312,400	33
5,328	158,211	477,117		5,033	761,025	2,014,154	34
381,457	731,820	28,599		429,881	1,933,583	7,644,332	35
	313,827	267,400	3,605,833		4,231,432	8,088,080	36
35,340		8,219	919,425		1,341,549	3,285,000	37
	280,453			23,000	4,227,390	4,068,000	38
	20,470	418,483	2,155,067		2,891,905	676,000	39
	164,133	54,871			1,419,545	1,281,860	40
	4,370	1,082,290	432,880		1,685,675		41
38,965	106,928	1,091,806	1,100,530	422,370	2,894,768	1,935,885	42
7,300	46,000	50,000		73,000	1,141,756	1,000,000	43
182,741	105,600	51,600	2,350,600	38,000	2,806,104	2,100,000	44
	363,243		2,293,944		2,980,326	2,994,890	45
	6,400	132,000	1,183,840	3,000	1,822,036	635,750	46
		2,853,155		4,959	2,960,907	704,000	47
1,144	1,900			365,000	418,474	3,472,240	48
	186,262	1,287,900			1,486,872	519,077	49
	113,617	609,232			990,443	311,136	50
	834	296,584		215,864	899,029	743,051	51
	158,550	32,960	11,550	243,200	736,960	1,400,000	52
	46,659	5,866		20,561	219,491	577,004	53
	39,341	1,258,926	1,412,505		2,742,314	1,467	54
		1,595,733			1,658,066	935,000	55
	21,394	2,566,000		179,082	2,766,476	3,017,480	56
		264,048	786,885		1,128,520	157,378	57
	5,012	625,492	668,708		1,546,030		58
15,000		10,000			1,547,365	9,462,635	59
	4,976	474,869	1,477,747	(d)	2,097,247	1,952,616	60
		544,020	244,137		1,098,657	338,031	61
	33,478	79,000			212,746	485,000	62
	94,408	3,200			394,493	250,000	63
	46,933	49,600	179,300		816,966	2,585,700	64
	51,526	168,633	3,204,680		3,498,729	1,723,552	65
	545,118	5,307		112,174	671,500	1,115,459	66
	174,606				734,574	1,236,526	67
	17,130	6,414	113,373	131,580	527,501	807,029	68
	140,813		21,411	111,973	533,304	2,139,668	69
	64,144			35,353	107,771	10,000	70
53,000	4,850	704,000			761,350	7,000,000	71
470,976		562,170	1,296,298		2,324,362	9,000,000	72
	199,453				410,574	1,317,567	73
120,586		11,616		590,838	770,369	1,707,819	74
	206,114				325,327	797,955	75
294,618	181,767	46,640			846,497	1,705,503	76

c Including all other kinds of pavements.

d Included in streets paved with gravel.

TABLE VIII.—AREA OF PUBLIC PARKS, AND OF STREETS PAVED, BY KIND OF PAVEMENT—
Concluded.

Marginal number.	Cities.	Public parks (acres).		Square yards of streets paved with—		
		Owned by city.	Other.	Cobblestones.	Granite blocks.	Bricks.
77	Harrisburg, Pa.	42.21	16.00	371		6,413
78	Portland, Me.	113.00	20.00	20,709	174,387	348
79	Yonkers, N. Y.	11.00			38,853	
80	Norfolk, Va.	95.85		85,620	166,020	33,280
81	Waterbury, Conn.	48.31		6,000	45,000	12,224
82	Holyoke, Mass.	23.71		18,000	194,555	31,933
83	Fort Wayne, Ind.	95.50	260.00	1,014		183,399
84	Youngstown, Ohio.	46.30			6,833	60,856
85	Houston, Tex.	14.13			9,540	136,613
86	Covington, Ky.			88,500		11,600
87	Akron, Ohio.	99.50			42,968	834,990
88	Dallas, Tex.	13.00				7,745
89	Saginaw, Mich.	61.89		88,306	910	129,536
90	Lancaster, Pa.				29,038	50,344
91	Lincoln, Nebr.	10.00			12,310	374,703
92	Brockton, Mass.	1.50			146,953	
93	Binghamton, N. Y.	100.50	25.00			27,682
94	Augusta, Ga.	23.00	40.00		24,207	
95	Pawtucket, R. I.	238.00			97,155	1,965
96	Altoona, Pa.			1,576	14,521	13,160
97	Wheeling, W. Va.	30.51		102,330		321,745
98	Mobile, Ala.	12.50	1.00			88,000
99	Birmingham, Ala.	20.00			61,025	3,926
100	Little Rock, Ark.	40.00			22,500	39,100
101	Springfield, Ohio	252.00				115,187
102	Galveston, Tex.	25.00	10.00			8,437
103	Tacoma, Wash.	731.90				2,000
104	Haverhill, Mass.	256.54	.78		80,390	
105	Spokane, Wash.	48.15	42.00			5,500
106	Terre Haute, Ind.	20.00				126,226
107	Dubuque, Iowa	6.00	151.00	19,941		115,810
108	Quincy, Ill.	122.00				807,069
109	South Bend, Ind.	19.13	94.23	5,000		291,570
110	Salem, Mass.	61.00	(c)		281,600	
111	Johnstown, Pa.	23.00		154,021		152,733
112	Elmira, N. Y.	75.29	5.00		6,887	48,660
113	Allentown, Pa.					5,160
114	Davenport, Iowa	46.00				467,684
115	McKeesport, Pa.	8.50			138,840	301,044
116	Springfield, Ill.	91.00	150.00			404,800
117	Chelsea, Mass.	34.00	7.30		67,518	4,200
118	Malden, Mass.	49.80	60.35		11,881	
119	Topeka, Kans.	12.50			46,016	129,000
120	Sioux City, Iowa.	9.00				30,844
121	Knoxville, Tenn.					97,000
122	Chattanooga, Tenn.	d 20.00			59,524	86,764
123	Superior, Wis.	96.00				
124	Rockford, Ill.	8.00	30.00			45,830
125	Taunton, Mass.	7.72			69,033	
126	Joliet, Ill.	100.00				85,091
127	Canton, Ohio	77.05				229,435
128	Butte, Mont.		360.00		35,782	
129	Auburn, N. Y.	.75				30,000

a Including unpaved streets.

b Included in streets paved with gravel.

TABLE VIII.—AREA OF PUBLIC PARKS, AND OF STREETS PAVED, BY KIND OF PAVEMENT—
Concluded.

Square yards of streets paved with—					Total square yards of streets paved.	Square yards of streets unpaved.	Marginal number.
Wooden blocks.	Asphalt and asphalt blocks.	Macadam.	Gravel.	All other kinds of pavements.			
	90,516	560,060			657,360	422,400	77
		124,352	778,000		1,097,796	9,400,000	78
	135,551	1,146,000			1,320,404	545,196	79
	20,000			175,000	479,920	470,000	80
	2,600	69,560			135,384	873,050	81
	19,866	10,111	1,075,078		1,349,543		82
219,615	127,152				531,180	2,874,667	83
	76,037	92,450		9,711	245,887	2,258,608	84
96,448	78,029	24,640	106,050		453,320	2,746,198	85
4,300	74,567	271,778			450,745	157,422	86
	17,427	28,715			424,100	1,430,880	87
173,335	14,918	420,135			616,133	2,725,184	88
348,510	100,448	96,397			764,107	3,097,600	89
	21,728	608,000			709,110	378,000	90
177,817	10,922				575,752	5,924,245	91
		85,359	1,711,804		1,944,116		92
7,937	117,291	25,000			177,910	2,011,000	93
	51,398	358,650	187,015	7,708	623,978	1,828,926	94
	919	397,056	1,761,167	1,657	2,259,919	1,163,947	95
	105,842	6,666	24,000		165,765	1,900,138	96
		129,742	54,907		608,724	501,156	97
106,600		88,000	35,200	123,200	440,000	1,249,600	98
	1,220	990,000			1,056,171	2,273,783	99
		86,400	168,000		316,000	3,168,000	100
750		30,000	46,000	14,856	208,792	191,547	101
206,000				41,070	254,507	6,166,937	102
70,500	58,000		165,000	338,000	633,500	31,415,000	103
		119,850	2,138,400		2,338,640	594,693	104
	33,975		2,111,202		2,150,677	9,704,333	105
	78,013		α 2,526,457		α 2,730,696	(b)	106
1,262	100	1,001,283	440,000		1,578,396	1,671,604	107
		64,929		34,657	906,645	5,314,866	108
60,385	47,245		14,400		418,600	1,400,000	109
	3,042	774,214	α 1,619,200		α 2,678,056	(b)	110
	8,204	205,333	61,600		573,687	872,646	111
	17,596	35,015	844,000	28,722	989,084	1,112,473	112
		254,000			259,180	700,000	113
		264,000			731,684	1,144,000	114
		3,000			442,884	2,401,296	115
70,400		10,208			485,408	1,645,120	116
		63,360	498,522		633,600	(c)	117
		154,194	1,235,072		1,401,147		118
38,000	194,000	11,333		75,984	494,333	4,650,000	119
347,835	76,070				514,749	19,744,130	120
		500,000			597,000	575,667	121
	78,890	29,818	96,578	8,976	359,550	630,216	122
1,383,000					1,893,000	4,680,500	123
22,220	26,268	473,084			567,402	2,178,198	124
		1,125,422	2,149,545		3,344,000		125
13,875	68,821	325,729	α 1,125,000		α 1,618,516	(b)	126
			217,165		446,600	1,749,450	127
					35,782	1,016,067	128
	1,000	880,000		30,000	941,000	410,000	129

c Not reported.

d Including 12 acres outside city limits.

TABLE IX.—CARE OF STREETS, DISPOSAL OF GARBAGE, AND FOOD AND SANITARY INSPECTION.

Mar- ginal num- ber.	Cities.	Streets.		
		Swept by hand or machine.	Square yards swept per week.	Average persons em- ployed in sweeping, sprinkling, etc.
1	New York, N. Y.	(a)	(a)	a 3,647
2	Chicago, Ill.	Both	9,000,000	675
3	Philadelphia, Pa.	(d)	(d)	(d)
4	St. Louis, Mo.	(a)	(a)	a 40
5	Boston, Mass.	Both	9,856,000	A 371
6	Baltimore, Md.	Both	8,743,264	265
7	Cleveland, Ohio	(d)	(d)	(d)
8	Buffalo, N. Y.	(d)	(d)	(d)
9	San Francisco, Cal.	(d)	(d)	(d)
10	Cincinnati, Ohio	Both	6,089,430	300
11	Pittsburg, Pa.	Both	10,600,000	485
12	New Orleans, La.	Hand	2,400,000	175
13	Detroit, Mich.	(a)	(a)	a 250
14	Milwaukee, Wis.	(a)	(a)	a 400
15	Washington, D. C.	(a)	(a)	a 38
16	Newark, N. J.	Both	1,987,322	388
17	Jersey City, N. J.	(d)	(d)	(d)
18	Louisville, Ky.	Both	1,950,672	124
19	Minneapolis, Minn.	Both	1,501,948	376
20	Providence, R. I.	Both	1,558,696	91
21	Indianapolis, Ind.	(d)	(d)	(d)
22	Kansas City, Mo.	Both	11,200,000	125
23	St. Paul, Minn.	Both	3,882,000	76
24	Rochester, N. Y.	(a)	(a)	a 475
25	Denver, Colo.	Both	3,089,172	89
26	Toledo, Ohio	Both	1,200,000	30
27	Allegheny, Pa.	Both	635,361	75
28	Columbus, Ohio	Both	3,000,000	73
29	Worcester, Mass.	Both	o 792,760	o 30
30	Syracuse, N. Y.	Both	1,267,200	115
31	New Haven, Conn.	Both	415,000	65
32	Paterson, N. J.	Both	(i)	70
33	Fall River, Mass.	Both	525,000	30
34	St. Joseph, Mo.	Both	(i)	A 20
35	Omaha, Nebr.	Hand	300,000	38
36	Los Angeles, Cal.	(a)	(a)	a 70
37	Memphis, Tenn.	Machine	722,679	14
38	Scranton, Pa.	Hand	962,500	30
39	Lowell, Mass.	Both	235,895	53
40	Albany, N. Y.	Both	978,643	75
41	Cambridge, Mass.	Machine	520,000	90
42	Portland, Oreg.	Both	1,900,679	51
43	Atlanta, Ga.	Both	5,343,780	62
44	Grand Rapids, Mich.	Both	(i)	100
45	Dayton, Ohio	Hand	740,000	20
46	Richmond, Va.	Both	2,552,784	85
47	Nashville, Tenn.	Both	500,000	a 90
48	Seattle, Wash.	Both	515,450	12
49	Hartford, Conn.	Both	1,194,450	A 19
50	Reading, Pa.	(a)	(a)	a 15
51	Wilmington, Del.	Both	2,112,000	30
52	Camden, N. J.	Both	(i)	18
53	Trenton, N. J.	Both	653,000	40
54	Bridgeport, Conn.	Both	250,000	w 40
55	Lynn, Mass.	Both	850,000	33
56	Oakland, Cal.	(a)	(a)	a 121
57	Lawrence, Mass.	Both	77,587	25
58	New Bedford, Mass.	Both	145,000	25
59	Des Moines, Iowa.	Both	782,134	12
60	Springfield, Mass.	Both	512,580	57
61	Somerville, Mass.	Both	3,500	30

a Streets swept partly by city, partly by contract.

b Included in swill and kitchen refuse.

c Including ashes.

d By contract.

e 20 nuisance, 12 house drainage, and 12 medical inspectors.

f Disposed of by householders.

g Disposed of by householders and by contract.

h Sprinkling done by contract.

i Not reported.

j Including 11 policemen.

k Including swill and kitchen refuse.

l Included in ashes.

m 6, each acting as both food and sanitary inspector.

TABLE IX.—CARE OF STREETS, DISPOSAL OF GARBAGE, AND FOOD AND SANITARY INSPECTION.

Tons of ashes dis- posed of.	Garbage.						Average persons employed in re- moval.	Inspectors.		Margi- nal num- ber.
	Swill and kitchen refuse.			Dead animals and other refuse.				Food.	Sani- tary.	
	Tons sold.	Tons burned.	Tons oth- erwise disposed of.	Tons sold.	Tons burned.	Tons oth- erwise disposed of.				
2,315,073		7,233	296,089			46,960	1,517	50	353	1
(d)			c 594,985	(d)	(d)	(d)	460	15	40	2
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)		e 44	3
330,000	(d)	(d)	60,000	(d)	(d)	(d)	611	4	35	4
100,000	(d)	(d)	42,500	(d)	(d)	(d)	175	2	19	5
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	3	12	6
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	3	26	7
258,648	(d)	(d)	11,752	(d)	(d)	(d)	(d)	1	5	8
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	11	25	9
(d)	(d)	(d)	(d)	(d)	(d)	(d)	60	7	18	10
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	8	17	11
(d)	(d)	(d)	28,716	(d)	(d)	(d)	140	14	23	12
(d)	(d)	(d)	20,146	(d)	(d)	(d)	(d)	2	j 15	13
(d)	(d)	(d)	(d)	(d)	(d)	(d)	38	8	8	14
k 334,800	(d)	(d)	(d)	(d)	(d)	(d)	57	4	11	15
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	3	22	16
(d)	(d)	(d)	e 86,380	(d)	(d)	(d)	(d)	(m)	(m)	17
(d)	(d)	(d)	(d)	(d)	(d)	(d)	80		3	18
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	7	19
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	1	20
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	2	6	21
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	2	10	22
94,962	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	8	23
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	2	6	24
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	12	25
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	2	5	26
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	6	27
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	2	8	28
48,000	(d)	(d)	9,660	(d)	(d)	(d)	22	2	5	29
(d)	(d)	(d)	8,187	(d)	(d)	(d)	12	1	4	30
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)		3	31
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)		1	32
4,532	(d)	(d)	(d)	(d)	(d)	(d)	96		1	33
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)		1	34
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	1	35
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	2	6	36
18,000	(d)	20,000	(d)	(d)	(d)	300	3,500	48	2	37
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	13	1	38
26,572	4,035	105	(d)	(d)	(d)	500	(d)	2	4	39
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	4	40
42,890	6,794	(d)	(d)	(d)	(d)	(d)	(d)	82	1	41
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	2	42
6,240	(d)	31,200	(d)	(d)	(d)	(d)	(d)	100	(g)	(g)
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	17	1	44
17,528	(d)	7,133	(d)	(d)	(d)	1,012	(d)	6	5	45
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	2	5	46
k 15,000	(d)	4,206	(d)	(d)	(d)	(d)	560	1	1	47
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	4	48
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	5	49
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	9	1	50
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	2	4	51
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	2	1	52
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(v)	(v)	53
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	20	2	54
50,000	2,519	(d)	7,034	(d)	(d)	(d)	(d)	16	3	55
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1	3	56
12,000	(d)	(d)	2,573	(d)	(d)	(d)	1,700	9	1	57
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(x)	(x)	58
(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	16	1	59
7,828	3,202	(d)	1,656	(d)	(d)	(d)	(d)	1	1	60
(d)	(d)	(d)	2,255	(d)	(d)	(d)	(d)	31	1	61

n For 30 weeks; no sweeping for 22 weeks.

o For 8 months; no sweeping for 4 months.

p Removed by householders; burned by city.

q 12, each acting as both food and sanitary inspector.

r Removed by contract without cost to city.

s Including persons employed in removing garbage, but not including chain gang, which averages 20 persons.

t Included in persons employed in sweeping, sprinkling, etc.

u Removed by householders; dumped in bay by city.

v 2, each acting as both food and sanitary inspector.

w Sprinkling done by private persons.

x 3, each acting as both food and sanitary inspector.

TABLE IX.—CARE OF STREETS, DISPOSAL OF GARBAGE, AND FOOD AND SANITARY INSPECTION—Continued.

Marginal number.	Cities.	Streets.		
		Swept by hand or machine.	Square yards swept per week.	Average persons employed in sweeping, sprinkling, etc.
62	Troy, N. Y.	(a)	(a)	(a)
63	Hoboken, N. J.	Both	863,000	25
64	Evansville, Ind.	(b)	(b)	(b)
65	Manchester, N. H.	Both	125,000	19
66	Utica, N. Y.	(b)	(b)	(b)
67	Peoria, Ill.	Both	1,190,000	20
68	Charleston, S. C.	Both	828,702	47
69	Savannah, Ga.	Both	3,240,617	51
70	Salt Lake City, Utah.	Machine	588,855	56
71	San Antonio, Tex.	Both	404,950	13
72	Duluth, Minn.	Both	400,000	10
73	Erie, Pa.	Both	205,287	15
74	Elizabeth, N. J.	Both	86,000	15
75	Wilkesbarre, Pa.	(l)	(l)	(l)
76	Kansas City, Kans.	Both	(a)	45
77	Harrisburg, Pa.	Hand	583,300	14
78	Portland, Me.	Both	195,096	30
79	Yonkers, N. Y.	Both	1,200,000	40
80	Norfolk, Va.	Machine	690,700	37
81	Waterbury, Conn.	Both	131,648	14
82	Holyoke, Mass.	Both	512,930	33
83	Fort Wayne, Ind.	Both	531,180	20
84	Youngstown, Ohio.	Both	225,000	25
85	Houston, Tex.	Both	233,000	8
86	Covington, Ky.	Hand	517,002	40
87	Akron, Ohio.	(b)	(b)	(b)
88	Dallas, Tex.	Machine	375,000	12
89	Saginaw, Mich.	Both	1,615,918	45
90	Lancaster, Pa.	Hand	202,220	10
91	Lincoln, Nebr.	Both	390,912	20
92	Brockton, Mass.	Hand	750,000	22
93	Binghamton, N. Y.	(r)	(r)	r 30
94	Augusta, Ga.	(b)	(b)	(b)
95	Pawtucket, R. I.	Hand	305,088	25
96	Altoona, Pa.	Both	405,297	7
97	Wheeling, W. Va.	Hand	118,608	9
98	Mobile, Ala.	Hand	140,400	30
99	Birmingham, Ala.	Both	1,300,271	15
100	Little Rock, Ark.	(t)	(t)	(t)
101	Springfield, Ohio	Hand	132,000	15
102	Galveston, Tex.	Both	650,000	12
103	Tacoma, Wash.	(u)	(u)	u 7
104	Haverhill, Mass.	Both	80,390	35
105	Spokane, Wash.	Hand	202,875	9
106	Terre Haute, Ind. (z)	Both	300,000	17
107	Dubuque, Iowa.	Hand	231,620	10
108	Quincy, Ill.	Both	300,000	25
109	South Bend, Ind.	Both	418,600	40
110	Salem, Mass.	Both	224,642	y 10
111	Johnstown, Pa.	Both	205,333	8
112	Elmira, N. Y.	Machine	450,000	8
113	Allentown, Pa.	(z)	(z)	(z)
114	Davenport, Iowa	Hand	467,684	32
115	McKeesport, Pa.	Both	140,800	10
116	Springfield, Ill.	Both	bb 435,000	14
117	Chelsea, Mass.	Both	70,000	20
118	Malden, Mass.	Machine	cc 11,881	cc 15
119	Topeka, Kans.	Both	500,000	16

a Not reported.

b By contract.

c Disposed of by householders.

d Disposed of by householders and by contract.

e Dead animals only, other refuse by contract.

f 4 in winter, 8 in summer.

g Included in dead animals and other refuse otherwise disposed of.

h Including ashes.

i Including dead animals and other refuse.

j Included in swill and kitchen refuse.

k For 8 months; no sweeping for 4 months.

l By property owners.

m 2, each acting as both food and sanitary inspector.

n Police act as inspectors.

o Loads.

TABLE IX.—CARE OF STREETS, DISPOSAL OF GARBAGE, AND FOOD AND SANITARY INSPECTION—Continued.

Garbage.								Inspectors.		
Tons of ashes disposed of.	Swill and kitchen refuse.			Dead animals and other refuse.			Average persons employed in removal.	Food.	Sanitary.	Marginal number.
	Tons sold.	Tons burned.	Tons otherwise disposed of.	Tons sold.	Tons burned.	Tons otherwise disposed of.				
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	6	62
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	2	63
(b)	(b)	5,000	(b)	(b)	(b)	(b)	(b)	8	1	64
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	2	2	65
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	2	2	66
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	2	6	67
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	39	5	68
(b)	(b)	110,256	(b)	(b)	7,502	h 16,678	30	1	4	69
(b)	(b)	(b)	(b)	(b)	(b)	(b)	11	1	1	70
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	5	71
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	2	72
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	2	73
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	74
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(m)	(m)	75
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	76
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	2	77
25,040	(b)	6,260	(b)	(b)	(b)	(b)	(b)	1	1	78
o 1,173	(b)	o 5,719	(b)	(b)	(b)	(b)	(b)	20	3	79
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	14	3	80
9,600	(b)	(b)	(b)	(b)	(b)	(b)	(b)	30	1	81
(b)	(b)	5,487	(b)	(b)	(b)	(b)	(b)	6	2	82
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	4	3	83
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	30	1	84
(b)	(b)	(b)	27,000	(b)	(b)	(b)	(b)	19	4	85
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	5	86
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(q)	2	87
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(q)	4	88
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(q)	2	89
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(q)	1	90
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(q)	2	91
2,870	(b)	(b)	2,100	(b)	(b)	(b)	(b)	11	1	92
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(q)	1	93
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	5	94
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	95
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	96
(b)	(b)	8,999	(b)	(b)	(b)	(b)	(b)	1	1	97
(b)	(b)	(b)	4,123	(b)	(b)	(b)	(b)	(s)	1	98
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	99
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	4	100
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(n)	1	101
(b)	(b)	14,962	19,925	(b)	(b)	(b)	(b)	18	3	102
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(q)	(q)	103
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	3	2	104
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	3	3	105
(b)	(b)	7,000	(b)	(b)	(b)	(b)	(b)	4	1	106
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	107
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	3	108
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	2	109
850	2,500	(b)	(b)	(b)	30	(b)	(b)	10	1	110
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	111
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	3	112
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	4	1	113
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	114
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	115
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	116
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	2	117
4,515	1,002	(b)	(b)	(b)	(b)	(b)	(b)	18	1	118
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	119
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	4	120
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	121
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	122
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	123
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	124
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	125
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	126
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	127
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	128
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	129
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	130
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	131
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	132
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	133
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	134
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	135
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	136
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	137
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	138
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	139
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	140
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	141
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	142
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	143
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	144
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	145
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	146
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	147
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	148
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	149
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	150
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	151
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	152
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	153
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	154
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	155
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	156
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	157
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	158
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	159
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	160
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	161
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	162
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	163
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	164
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	165
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	166
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	167
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	168
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	169
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	170
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	171
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	172
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	173
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	174
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	175
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	176
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	177
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	178
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	179
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	180
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	181
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	182
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	183
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	184
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	185
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	186
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	187
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	188
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	189
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	190
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	191
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	192
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	193
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	194
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	195
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	196
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	197
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	198
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	199
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	200
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	201
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	202
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	203
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	204
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	205
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	206
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	207
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	208
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	209
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	210
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	211
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	212
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	213
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	214
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	215
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	216
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	217
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	218
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	219
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	220
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	221
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	222
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	223
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	224
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	225
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	226
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	227
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	228
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	1	1	229
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)			

p Removed by contract without cost to city.

q One acting as both food and sanitary inspector.

r Streets swept partly by city, partly by contract.

s One 7 months, eight 1 month.

t Streets not swept; gutters cleaned occasionally by chain gang.

u Streets flushed, not swept.

v Not including chain gang.

w Not including 83,975 square yards flushed weekly.

x Data are for 8½ months.

y Sprinkling done by contract.

z Property owners clean, city removes cleanings.

aa Removed by householders; burned by city.

bb For 35 weeks; no sweeping for 17 weeks.

cc For 10 months; no sweeping for 2 months.

TABLE IX.—CARE OF STREETS, DISPOSAL OF GARBAGE, AND FOOD AND SANITARY INSPECTION—Concluded.

Marginal number.	Cities.	Streets.		
		Swept by hand or machine.	Square yards swept per week.	Average persons employed in sweeping, sprinkling, etc.
120	Sioux City, Iowa.....	Both	350,000	8
121	Knoxville, Tenn.....	Both	60,000	<i>b</i> 20
122	Chattanooga, Tenn.....	Both	225,000	12
123	Superior, Wis.....	Machine.....	75,000	4
124	Rockford, Ill.....	Both	565,908	12
125	Taunton, Mass.....	Both	40,000	20
126	Joliet, Ill.....	Hand.....	350,000	12
127	Canton, Ohio.....	(<i>h</i>).....	(<i>h</i>).....	84
128	Butte, Mont.....	Machine	1250,474	134
129	Auburn, N. Y.....	Both.....	48,000	8

a By contract.*b* Sprinkling done by private persons.*c* Included in swill and kitchen refuse.*d* Including ashes.*e* Employed irregularly.*f* Police act as inspectors.

TABLE IX.—CARE OF STREETS, DISPOSAL OF GARBAGE, AND FOOD AND SANITARY INSPECTION—Concluded.

Garbage.								Inspectors.		
Tons of ashes dis- posed of.	Swill and kitchen refuse.			Dead animals and other refuse.			Average persons employed in re- moval.	Food.	Sani- tary.	Mar- ginal num- ber.
	Tons sold.	Tons burned.	Tons oth- erwise disposed of.	Tons sold.	Tons burned.	Tons oth- erwise disposed of.				
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	1	1	120
(c)			d 9,800			28	10	e 3	1	121
			17,428		9,000		12	(f)	(f)	122
(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	1	3	123
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)		8	124
			300			1	4		1	125
1,000			3,500			500	7	1	1	126
(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	1	1	127
(j)		(k)			(k)		(k)	(l)	(l)	128
			5,200				12	1	1	129

g Disposed of by householders.

h Streets flushed, not swept.

i For 6 months; no sweeping for 6 months.

j Not reported.

k Removed by householders; burned by city.

l2, each acting as both food and sanitary inspector.

TABLE X.—PUBLIC SCHOOLS AND LIBRARIES.

Marginal number.	Cities.	Public schools.							
		Number.		Teachers.		Pupils.			
		High.	Other.	In high schools.	In other schools.	Number.		Average attendance.	
						In high schools.	In other schools.	In high schools.	In other schools.
1	New York, N. Y.	24	462	513	10,365	20,736	523,328	11,309	364,287
2	Chicago, Ill.	22	835	845	5,891	10,123	232,111	8,415	181,974
3	Philadelphia, Pa.	6	517	221	4,016	8,166	198,276	4,644	121,675
4	St. Louis, Mo.	2	86	78	1,556	2,107	76,577	1,601	64,678
5	Boston, Mass.	12	197	195	1,591	5,769	79,551	4,815	62,742
6	Baltimore, Md.	6	177	79	1,807	2,650	81,012	2,166	52,844
7	Cleveland, Ohio.	5	58	102	1,132	3,560	54,100	2,931	41,542
8	Buffalo, N. Y.	4	76	94	1,231	4,116	57,574	2,526	39,357
9	San Francisco, Cal.	5	85	68	1,006	2,338	46,632	1,853	35,086
10	Cincinnati, Ohio.	4	51	62	965	2,689	43,692	2,240	34,694
11	Pittsburg, Pa.	3	80	60	847	1,775	43,500	1,689	33,101
12	New Orleans, La.	4	65	52	635	1,058	29,712	879	23,513
13	Detroit, Mich.	3	78	90	742	2,375	36,449	2,048	26,930
14	Milwaukee, Wis.	3	47	53	797	1,477	31,773	1,424	29,372
15	Washington, D. C.	5	119	149	1,067	3,427	44,820	2,759	35,058
16	Newark, N. J.	1	57	46	814	1,450	36,206	1,118	26,102
17	Jersey City, N. J.	1	82	20	615	1,097	34,818	640	22,051
18	Louisville, Ky.	5	56	58	569	1,735	27,707	1,467	20,006
19	Minneapolis, Minn.	4	56	90	692	2,229	32,643	1,977	25,169
20	Providence, R. I.	5	124	123	786	2,943	31,907	2,058	18,959
21	Indianapolis, Ind.	2	54	78	631	1,983	24,492	1,780	18,302
22	Kansas City, Mo.	3	40	80	507	3,116	21,885	2,252	14,294
23	St. Paul, Minn.	4	41	60	486	1,705	23,126	1,440	18,040
24	Rochester, N. Y.	1	38	39	751	962	23,318	825	17,907
25	Denver, Colo.	5	63	100	486	1,918	23,405	1,538	18,547
26	Toledo, Ohio.	2	39	25	396	984	18,556	828	15,072
27	Allegheny, Pa.	1	35	17	350	556	19,565	481	13,599
28	Columbus, Ohio.	4	38	75	415	2,038	16,322	1,663	13,110
29	Worcester, Mass.	3	71	90	528	3,124	21,229	1,865	15,926
30	Syracuse, N. Y.	1	34	37	409	1,458	17,131	1,080	13,907
31	New Haven, Conn.	2	43	46	426	1,067	17,204	908	13,285
32	Paterson, N. J.	3	25	28	370	1,034	19,782	641	11,782
33	Fall River, Mass.	2	70	31	466	930	19,971	743	12,657
34	St. Joseph, Mo.	2	23	17	156	650	8,105	548	5,469
35	Omaha, Nebr.	1	41	40	343	1,346	17,618	1,050	12,597
36	Los Angeles, Cal.	1	54	37	447	1,361	18,953	1,114	13,075
37	Memphis, Tenn.	aa 2	aa 12	aa 13	aa 124	aa 435	aa 6,611	aa 337	aa 4,089
38	Scranton, Pa.	1	37	23	314	612	15,294	593	11,213
39	Lowell, Mass.	1	68	27	242	837	15,506	776	8,875
40	Albany, N. Y.	1	21	27	279	741	12,600	604	10,039
41	Cambridge, Mass.	3	54	56	340	1,192	15,913	1,017	11,819
42	Portland, Oreg.	1	30	22	287	862	11,335	710	8,618
43	Atlanta, Ga.	2	21	20	191	972	12,665	538	9,073
44	Grand Rapids, Mich.	2	33	55	324	1,264	14,651	1,049	11,165
45	Dayton, Ohio.	1	29	35	361	1,041	11,094	936	9,435
46	Richmond, Va.	2	17	36	220	1,247	10,691	908	8,751
47	Nashville, Tenn.	2	17	18	196	751	11,085	522	8,818
48	Seattle, Wash.	1	21	21	193	592	9,005	497	6,723
49	Hartford, Conn.	1	17	38	260	761	10,065	712	7,803
50	Reading, Pa.	2	42	19	267	630	11,465	587	9,836
51	Wilmington, Del.	2	28	23	222	650	10,347	457	7,625
52	Camden, N. J.	1	28	13	385	260	13,196	261	9,965
53	Trenton, N. J.	2	27	19	211	698	9,787	530	7,613
54	Bridgeport, Conn.	1	19	13	182	434	9,568	416	7,337
55	Lynn, Mass.	2	61	32	259	822	10,237	748	8,586

a Not reported.

b Not including 46 libraries, not reported.

c Not including 13 libraries, not reported.

d Not including 17 libraries, not reported.

e Not including 18 libraries, not reported.

f Not including 44 libraries, not reported.

g Not including 4 libraries, not reported, and 2 noncirculating libraries.

h Not including 12 libraries, not reported.

i Not owned but controlled by city.

j Not including 1 library, not reported.

k Not including 11 libraries, not reported.

l Not including 3 libraries, not reported.

m Not including 27 libraries, not reported.

n Not including 8 libraries, not reported.

o Not including 7 libraries, not reported.

TABLE X.—PUBLIC SCHOOLS AND LIBRARIES.

Libraries.											Marginal number.	
Municipal.			Other.			Total.						
Volumes.			Volumes.			Volumes.						
No.	Number.	For home use.	For use in reading rooms.	No.	Number.	For home use.	For use in reading rooms.	No.	Number.	For home use.		For use in reading rooms.
											Withdrawn.			Withdrawn.
4	86,651	161,531	(a)	633	3,204,004	3,803,258	(a)	673	3,290,656	3,964,789	(a)	1
1	296,307	1,690,904	542,839	46	907,771	(a)	(a)	47	1,204,078	b1,690,904	b542,839	2
1	203,102	1,778,387	(a)	43	1,228,372	c446,175	d973,402	44	1,431,474	c2,224,562	e973,402	3
1	140,000	707,823	268,852	30	322,273	131,512	785,760	31	462,273	839,335	1,054,612	4
1	1740,064	1,253,410	383,574	44	651,786	(a)	(a)	45	1,391,850	f1,253,410	f383,574	5
1	199,000	639,182	97,436	13	256,655	g61,318	h87,111	14	455,655	g720,500	h184,547	6
1	150,446	831,727	193,944	20	207,333	e81,000	e54,173	21	357,779	e912,727	e248,117	7
f3	204,768	887,686	f101,636	10	70,697	52,142	(a)	13	275,465	939,828	k101,695	8
1	117,737	544,519	203,583	3	214,201	191,159	(a)	4	331,948	735,678	l209,583	9
1	1225,775	400,460	207,451	27	306,887	(a)	(a)	28	532,662	m400,460	m207,451	10
1	98,600	345,590	350,000	8	150,000	90,000	(a)	9	195,000	84,000	98,500	11
1	45,000	84,000	8,500	7	29,420	790	(a)	9	188,927	j451,602	n509,506	12
2	159,507	f450,812	f509,506	7	38,700	(a)	(a)	9	153,985	o449,132	(a)	13
2	115,285	449,132	(a)	7	38,700	(a)	(a)	9	153,985	o449,132	(a)	14
1	20,000	p57,734	(a)	51	2,482,388	q158,102	r339,872	52	2,502,388	q215,836	s339,872	15
1	70,674	346,985	(a)	1	67,486	427,808	(a)	1	70,674	346,985	(a)	16
1	67,486	427,808	54,625	1	67,486	427,808	(a)	1	67,486	427,808	54,625	17
1	112,615	596,000	300,000	6	87,950	(a)	(a)	6	87,950	(a)	(a)	18
1	87,554	295,054	135,622	2	103,000	(a)	(a)	7	215,615	596,000	t300,000	19
1	45,000	203,298	123,697	2	96,307	120,166	34,160	2	96,307	120,166	34,160	20
1	50,000	179,595	52,631	5	75,200	1,750	17,500	5	162,754	296,804	t143,122	21
1	33,287	133,733	(a)	2	13,500	3,025	(a)	3	58,500	206,323	u123,697	22
1	75,000	375,000	125,000	5	122,077	(a)	(a)	6	172,077	179,595	v52,631	23
1	48,000	177,931	43,627	1	144,875	j26,978	j114,827	7	178,162	j160,711	u114,827	24
2	61,451	165,202	403,373	4	44,250	5,235	(a)	5	119,250	380,235	v125,000	25
2	67,967	235,703	274,001	1	3,000	4,000	2,500	2	61,000	181,931	46,127	26
1	125,496	196,485	120,245	6	123,054	154,216	314,330	8	191,021	389,919	588,331	27
1	42,644	145,492	(a)	1	125,496	196,485	(a)	1	125,496	196,485	120,245	28
1	47,000	301,000	(a)	3	65,326	3,749	(a)	4	107,970	149,241	(a)	29
1	35,150	125,097	(a)	1	22,000	38,000	(a)	2	69,000	339,000	(a)	30
1	57,420	159,663	(a)	2	3,600	30	(a)	1	35,150	125,097	(a)	31
1	18,382	109,939	x2,070	1	3,325	y2,000	(a)	2	61,020	159,693	(a)	32
1	51,789	191,679	38,199	2	9,100	(a)	(a)	3	21,707	111,939	u2,070	33
1	51,334	358,898	167,687	4	38,000	38,489	(a)	4	51,789	191,679	38,199	34
1	36,000	126,500	(a)	5	13,918	w12,000	w9,000	6	60,434	j358,898	j167,687	35
1	59,650	125,270	16,327	20	457,672	108,240	214,421	20	457,672	108,240	214,421	36
1	56,315	175,026	(a)	4	586,211	u99,458	u53,482	4	56,315	175,026	u99,458	37
1	54,846	204,545	41,740	9	40,986	61,930	(a)	4	40,986	61,930	(a)	38
1	44,048	128,673	80,885	4	96,650	19,379	(a)	4	96,650	19,379	(a)	39
1	20,032	137,941	(a)	2	9,394	(a)	(a)	3	64,240	u204,545	u41,740	40
1	8,344	54,399	(a)	2	9,124	9,000	(a)	3	53,172	137,673	u80,885	41
1	36,660	175,458	40,000	7	128,500	18,000	(a)	7	128,500	18,000	(a)	42
1	35,000	140,000	16,000	11	82,712	(a)	(a)	11	82,712	(a)	(a)	43
1	58,000	107,279	47,257	9	295,101	206,225	394,350	9	295,101	206,225	394,350	44
1	8,344	54,399	(a)	2	3,843	623	(a)	3	12,187	55,022	(a)	45
1	36,660	175,458	40,000	5	13,258	2,500	11,000	6	49,918	177,938	51,000	50
1	35,000	140,000	16,000	3	14,300	j48,196	j30,897	3	14,300	j48,196	j30,897	52
1	35,000	140,000	16,000	2	7,300	18,537	(a)	2	7,300	18,537	(a)	53
1	35,000	140,000	16,000	1	7,681	6,000	(a)	2	42,681	140,000	22,000	54
1	58,000	107,279	47,257	1	58,000	107,279	47,257	1	58,000	107,279	47,257	55

p Data are for 6 months.

q Not including 30 libraries, not reported.

r Not including 47 libraries, not reported.

s Not including 48 libraries, not reported.

t Not including 6 libraries, not reported.

u Not including 2 libraries, not reported.

v Not including 5 libraries, not reported.

w Not including 4 libraries, not reported.

x From circulating department, no record of reference room.

y Law books withdrawn for use in court room.

z Not including several small libraries, not reported.

aa Not including schools in territory annexed during year.

bb Not including 19 small libraries belonging to secret organizations.

cc Held in trust for city.

TABLE X.—PUBLIC SCHOOLS AND LIBRARIES—Continued.

Marginal number.	Cities.	Public schools.							
		Number.		Teachers.		Pupils.			
		High.	Other.	In high schools.	In other schools.	Number.		Average attendance.	
						In high schools.	In other schools.	In high schools.	In other schools.
56	Oakland, Cal.....	2	18	26	214	713	11,175	571	7,999
57	Lawrence, Mass.....	1	26	19	261	756	8,026	520	6,555
58	New Bedford, Mass.....	1	25	15	197	493	8,607	331	6,481
59	Des Moines, Iowa.....	3	50	38	d 311	1,068	d 19,130	874	d 16,126
60	Springfield, Mass.....	2	34	36	275	640	11,146	549	7,871
61	Somerville, Mass.....	2	25	37	249	923	11,779	834	8,369
62	Troy, N. Y.....	1	21	13	198	247	6,110	241	5,430
63	Hoboken, N. J.....	1	8	8	191	211	8,701	186	6,542
64	Evansville, Ind.....	2	14	26	204	764	7,666	529	6,145
65	Manchester, N. H.....	1	23	12	145	449	5,510	388	3,741
66	Utica, N. Y.....	1	21	14	193	434	8,412	350	6,280
67	Peoria, Ill.....	1	16	20	188	620	7,526	525	7,240
68	Charleston, S. C.....	1	5	11	85	515	7,651	301	4,754
69	Savannah, Ga.....	1	11	9	122	307	5,708	262	4,376
70	Salt Lake City, Utah..	1	24	20	252	661	11,630	(g)	h 9,797
71	Dan Antonio, Tex.....	1	17	6	110	161	6,927	120	5,029
72	Duluth, Minn.....	1	46	21	226	531	9,164	427	7,114
73	Erie, Pa.....	1	j 16	18	178	568	6,604	514	5,265
74	Elizabeth, N. J.....	1	8	13	112	418	6,530	333	4,736
75	Wilkesbarre, Pa.....	1	19	18	155	752	8,340	688	6,545
76	Kansas City, Kans.....	1	19	12	137	587	7,583	427	5,574
77	Harrisburg, Pa.....	1	24	21	165	664	8,496	512	6,096
78	Portland, Me.....	2	41	23	187	748	7,512	652	5,621
79	Yonkers, N. Y.....	1	15	12	147	326	6,877	296	14,491
80	Norfolk, Va.....	1	11	8	57	225	3,321	197	2,448
81	Waterbury, Conn.....	2	17	25	174	457	6,307	348	5,035
82	Holyoke, Mass.....	1	27	25	218	585	7,156	466	5,049
83	Fort Wayne, Ind.....	1	17	11	130	358	4,940	294	4,194
84	Youngstown, Ohio.....	1	18	14	134	475	6,478	420	5,220
85	Houston, Tex.....	2	14	12	126	492	4,709	352	4,501
86	Covington, Ky.....	1	11	6	m 115	194	3,906	156	3,137
87	Akron, Ohio.....	1	11	18	123	506	5,611	384	4,517
88	Dallas, Tex.....	2	13	8	105	346	5,882	290	4,035
89	Saginaw, Mich.....	2	28	30	196	890	7,784	776	6,396
90	Lancaster, Pa.....	j 2	j 16	14	103	416	5,426	375	4,187
91	Lincoln, Nebr.....	1	18	27	122	837	5,741	638	4,165
92	Brockton, Mass.....	1	28	20	145	505	6,025	478	5,232
93	Binghamton, N. Y.....	1	18	22	175	720	6,622	549	5,261
94	Augusta, Ga.....	1	12	7	94	190	5,085	160	4,123
95	Pawtucket, R. I.....	2	31	21	135	485	6,333	314	3,641
96	Altoona, Pa.....	j 1	j 11	9	145	385	5,585	327	4,644
97	Wheeling, W. Va.....	2	8	10	133	325	4,334	215	3,464
98	Mobile, Ala.....	2	12	11	85	393	4,057	335	2,865
99	Birmingham, Ala.....	1	7	8	78	238	3,678	200	2,636
100	Little Rock, Ark.....	2	13	9	85	205	5,684	168	4,086
101	Springfield, Ohio.....	1	16	17	130	686	5,607	540	4,338
102	Galveston, Tex.....	2	8	9	104	278	5,194	232	4,233
103	Tacoma, Wash.....	1	16	16	151	564	6,024	452	4,783
104	Haverhill, Mass.....	2	38	18	179	491	4,925	415	3,853
105	Spokane, Wash.....	1	14	13	111	362	5,755	310	3,166
106	Terre Haute, Ind.....	1	19	22	156	738	6,188	600	4,605
107	Dubuque, Iowa.....	1	11	13	121	476	4,696	362	3,678
108	Quincy, Ill.....	1	11	9	101	239	4,932	199	3,385
109	South Bend, Ind.....	1	9	9	98	310	3,775	250	3,045
110	Salem, Mass.....	1	27	17	117	482	4,409	429	3,584
111	Johnstown, Pa.....	1	j 17	7	98	141	5,262	130	4,187
112	Elmira, N. Y.....	1	11	12	144	464	5,002	399	4,104
113	Allentown, Pa.....	1	15	9	103	355	4,674	325	4,319
114	Davenport, Iowa.....	1	11	12	139	435	5,728	345	4,612
115	McKeesport, Pa.....	j 1	j 10	6	114	145	5,665	117	4,182
116	Springfield, Ill.....	1	14	13	114	529	5,067	445	3,903
117	Chelsea, Mass.....	1	15	17	121	441	5,520	374	4,470

a Law books withdrawn for use in court room.

b Not reported.

c Not including 1 library, not reported.

d Not including 7 districts partly outside city limits.

e Not including 3 libraries, not reported.

f Not including 5 libraries, not reported.

g Included in other schools.

h Including high schools.

TABLE X.—PUBLIC SCHOOLS AND LIBRARIES—Continued.

Libraries.												
Municipal.				Other.				Total.				Marginal number.
Volumes.				Volumes.				Volumes.				
No.	Withdrawn.			No.	Withdrawn.			No.	Withdrawn.			
	Number.	For home use.	For use in reading rooms.		Number.	For home use.	For use in reading rooms.		Number.	For home use.	For use in reading rooms.	
1	28,465	154,437	36,000	1	4,500	a 30,000	2,400	2	32,965	184,437	38,400		56
1	49,341	128,381	18,911	1	8,236	c 200	(b)	5	49,341	128,381	18,911	57
1	73,429	129,016	(b)	4	114,000	150,424	(b)	5	81,665	e 129,216	(b)	58
1	26,391	133,840	20,817	1	52,280	e 59,815	f 2,922	1	26,391	133,840	20,817	59
1	43,431	215,448	(b)	7	2,600	1,097	500	1	114,000	150,424	(b)	60
1	21,241	129,378	(b)	1	25,000	63,810	20,000	1	43,431	215,448	(b)	61
1	44,104	77,159	17,399	5	23,381	(b)	(b)	7	52,280	e 59,815	f 2,922	62
1	28,979	149,260	(b)	3	36,000	25,069	(b)	2	23,841	130,475	e 500	63
1	70,317	152,982	(b)	2	22,707	9,434	22,102	1	25,000	63,810	20,000	64
1	13,374	61,232	31,596	1	29,000	(b)	(b)	6	44,104	77,159	17,399	65
1	35,000	78,027	(b)	3	8,000	40,000	10,000	3	52,360	f 149,260	(b)	66
1	17,506	138,877	151,960	1	7,900	(b)	(b)	1	70,317	152,982	(b)	67
1	47,500	99,000	17,000	1	1,800	(b)	2,500	3	36,000	25,069	(b)	68
1	13,500	53,880	(b)	1	8,920	16,239	(b)	2	22,707	9,434	22,102	69
1	10,816	49,128	(b)	4	51,960	e 70,778	(b)	3	42,374	i 61,232	i 31,596	70
1	18,364	62,589	41,729	1	3,100	11,475	(b)	3	8,000	40,000	10,000	71
2	20,125	58,028	108,000	5	128,451	20,500	84,000	2	42,900	78,027	(b)	72
1	16,500	71,053	12,633	7	37,511	10,327	(b)	2	19,306	138,877	154,460	73
1	30,157	116,942	2,912	1	6,000	10,000	(b)	1	8,920	16,239	(b)	74
1	12,185	60,122	(b)	1	56,439	81,307	(b)	4	51,960	e 70,778	(b)	75
1	18,415	45,882	(b)	1	20,487	49,645	3,000	1	3,100	11,475	(b)	76
1	17,200	68,672	13,818	1	15,188	37,398	13,878	5	128,451	20,500	84,000	77
1	16,832	61,101	(b)	1	8,000	12,000	(b)	8	85,011	109,327	k 17,000	78
1	7,500	24,000	(b)	1	56,439	81,307	(b)	1	13,500	53,880	(b)	79
1	11,983	57,935	8,000	1	29,302	44,802	27,000	1	6,000	10,000	(b)	80
1	65,000	124,494	(b)	3	14,000	25,000	(b)	1	56,439	81,307	(b)	81
1	6,000	22,306	3,650	1	9,000	5,292	(b)	1	20,487	49,645	3,000	82
1	16,945	55,075	6,000	1	29,302	44,802	27,000	1	10,816	49,128	(b)	83
1	24,916	64,046	4,310	3	14,000	25,000	(b)	1	15,188	37,398	13,878	84
1	8,070	39,400	(b)	1	9,000	16,000	(b)	1	8,000	12,000	(b)	85
1	38,544	118,856	(b)	3	6,500	4,300	(b)	1	18,364	62,589	41,729	86
1	41,113	96,084	93,991	11	5,000	(b)	(b)	3	44,125	58,028	160,000	87
1	17,500	70,115	7,384	1	5,600	7,000	(b)	8	69,700	43,430	38,000	88
1	17,500	70,115	7,384	2	38,000	(b)	(b)	4	108,571	71,053	e 12,633	89
1	17,500	70,115	7,384	1	29,302	44,802	27,000	1	30,157	116,942	2,912	90
1	17,500	70,115	7,384	3	14,000	25,000	(b)	4	20,832	64,870	(b)	91
1	17,500	70,115	7,384	1	9,000	16,000	(b)	1	9,000	5,292	(b)	92
1	17,500	70,115	7,384	3	6,500	4,300	(b)	1	18,415	45,882	(b)	93
1	17,500	70,115	7,384	2	21,832	e 61,101	(b)	1	29,302	44,802	27,000	94
1	17,500	70,115	7,384	12	13,100	31,000	(b)	1	17,200	68,672	13,818	95
1	17,500	70,115	7,384	1	11,983	57,935	8,000	3	14,000	25,000	(b)	96
1	17,500	70,115	7,384	1	65,000	124,494	(b)	1	9,000	16,000	(b)	97
1	17,500	70,115	7,384	1	6,000	22,306	3,650	3	6,500	4,300	(b)	98
1	17,500	70,115	7,384	3	54,945	i 55,075	i 6,000	2	21,832	e 61,101	(b)	99
1	17,500	70,115	7,384	1	17,500	26,710	(b)	8	13,100	31,000	(b)	100
1	17,500	70,115	7,384	6	33,212	f 64,046	f 4,310	1	65,000	124,494	(b)	101
1	17,500	70,115	7,384	1	8,070	39,400	(b)	2	6,000	22,306	3,650	102
1	17,500	70,115	7,384	3	138,544	i 118,856	(b)	3	54,945	i 55,075	i 6,000	103
1	17,500	70,115	7,384	1	12,550	78,161	10,500	1	17,500	26,710	(b)	104
1	17,500	70,115	7,384	1	6,594	31,621	300	6	33,212	f 64,046	f 4,310	105
1	17,500	70,115	7,384	3	4,000	1,000	i 2,000	1	8,070	39,400	(b)	106
1	17,500	70,115	7,384	3	24,460	15,422	10,428	3	138,544	i 118,856	(b)	107
1	17,500	70,115	7,384	5	124,213	o 96,084	o 93,991	3	12,550	78,161	10,500	108
1	17,500	70,115	7,384	1	17,500	70,115	7,384	1	6,594	31,621	300	109
1	17,500	70,115	7,384	3	4,000	1,000	i 2,000	3	4,000	1,000	i 2,000	110
1	17,500	70,115	7,384	3	24,460	15,422	10,428	3	24,460	15,422	10,428	111
1	17,500	70,115	7,384	5	124,213	o 96,084	o 93,991	5	124,213	o 96,084	o 93,991	112
1	17,500	70,115	7,384	1	17,500	70,115	7,384	1	17,500	70,115	7,384	113

i Not including 2 libraries, not reported.

j Buildings.

k Not including 7 libraries, not reported.

l Not including 3 evening schools, with an average attendance of 240 for 22 weeks.

m Including 12 substitutes.

n Owned by library association, controlled by city.

o Not including 4 libraries, not reported.

TABLE X.—PUBLIC SCHOOLS AND LIBRARIES—Concluded.

Marginal number.	Cities.	Public schools.							
		Number.		Teachers.		Pupils.			
		High.	Other.	In high schools.	In other schools.	Number.		Average attendance.	
						In high schools.	In other schools.	In high schools.	In other schools.
118	Malden, Mass.....	1	17	20	146	472	5,762	388	4,511
119	Topeka, Kans.....	1	20	15	114	690	6,010	518	5,252
120	Sioux City, Iowa.....	1	26	16	128	518	5,668	400	4,516
121	Knoxville, Tenn.....	(c)	8	11	82	330	4,668	278	3,762
122	Chattanooga, Tenn.....	2	6	10	83	264	4,343	218	2,783
123	Superior, Wis.....	2	28	13	138	280	5,424	252	3,700
124	Rockford, Ill.....	1	16	13	119	471	5,174	399	4,438
125	Taunton, Mass.....	1	c 30	12	139	400	4,861	346	4,143
126	Joliet, Ill.....	1	21	14	118	486	5,574	430	4,515
127	Canton, Ohio.....	2	12	18	117	491	5,207	409	4,610
128	Butte, Mont.....	1	6	13	79	429	4,060	367	2,874
129	Auburn, N. Y.....	1	14	11	109	358	3,485	292	2,799

a Not reported.

b Not including 4 libraries, not reported.

c Four high school departments in other schools.

TABLE X.—PUBLIC SCHOOLS AND LIBRARIES—Concluded.

Libraries.												Marginal number.
Municipal.				Other.				Total.				
No.	Volumes.			No.	Volumes.			No.	Volumes.			
	Number.	Withdrawn.			Number.	Withdrawn.			Number.	Withdrawn.		
		For home use.	For use in reading rooms.			For home use.	For use in reading rooms.			For home use.	For use in reading rooms.	
1	35,097	134,787	(a)					1	35,097	134,787	(a)	118
1	16,800	76,900	9,500	4	127,000		(a)	5	143,800	76,900	b 9,500	119
1	13,082	55,165	(a)	1	100		(a)	2	13,182	55,165	(a)	120
				5	35,982	21,436	(a)	5	35,982	21,436	(a)	121
				4	11,100	(a)	(a)	4	11,100	(a)	(a)	122
1	12,471	24,078	(a)					1	12,471	24,078	(a)	123
1	33,175	97,128	20,399	1	50		(a)	2	33,225	97,128	d 20,399	124
1	46,115	73,719	6,000	1	6,829	198	(a)	2	52,944	73,917	d 6,000	125
1	f 15,018	f 72,000	f 3,500					1	f 15,018	f 72,000	f 3,500	126
				1	6,636	30,808	15,500	1	6,636	30,808	15,500	127
1	26,984	90,019	47,143					1	26,984	90,019	47,143	128
				1	14,500	31,578	2,666	1	14,500	31,578	2,666	129

d Not including 1 library, not reported.

e Buildings.

f Data are for 11 months.

TABLE XI.—CHARITIES: ALMSHOUSES, CHARITABLE HOMES, ETC., ORPHAN ASYLUMS, AND HOSPITALS.

Marginal number.	Cities.	Almshouses, charitable homes, etc.				Orphan asylums.				Hospitals.			
		Municipal.		Other.		Municipal.		Other.		Municipal.		Other.	
		No.	Average number of inmates.	No.	Average number of inmates.	No.	Average number of inmates.	No.	Average number of inmates.	No.	Number of patients treated.	No.	Number of patients treated.
1	New York, N. Y.	3	3,869	34	3,019	42	11,914	a 9	53,769	85	430,077		
2	Chicago, Ill.	1	18	6,252		30	4,516	b 1	(c)	34	72,539		
3	Philadelphia, Pa.	4	4,110	5	701	13	1,541	2	12,583	36	505,879		
4	St. Louis, Mo.	1	5,573	11	701	16	2,118	2	13,176	26	12,681		
5	Boston, Mass.	2	753	13	709	23	2,185	7	42,459	55	281,240		
6	Baltimore, Md.	1	1,219	5	867	28	1,768	1	2,574	13	11,845		
7	Cleveland, Ohio	1	1,091	25	1,091	8	1,162	2	1,629	14	10,439		
8	Buffalo, N. Y.	1	609	1	406	6	907	c 1	2	15	24,881		
9	San Francisco, Cal.	1	982	5	(c)	11	2,424	4	12,396	9	6,704		
10	Cincinnati, Ohio	1	913	18	2,339	3	1,079	1	4,940	17	16,660		
11	Pittsburg, Pa.	1	815	3	297	3	579	c 1	18	11	13,473		
12	New Orleans, La.	2	238	2	526	15	2,245	(c)	(c)	16	9,149		
13	Detroit, Mich.	1	344	1	344	2	259	f 1	5	5	2,589		
14	Milwaukee, Wis.	1	1	1	412	4	437	2	551	5	2,701		
15	Washington, D. C.	2	226	15	1,551	14	1,225	g 2	1,354	15	14,722		
16	Newark, N. J.	1	200						1,931				
17	Jersey City, N. J.			(c)	(c)				2,014				
18	Louisville, Ky.	1	855	18	763	1	400	(c)	1,051	2	2,589	10	2,735
19	Minneapolis, Minn.	1	106	1	55			3	569	1	1,139	5	2,425
20	Providence, R. I.											1	2,942
21	Indianapolis, Ind.			1	250	4	221	1	1,808	1	1,065	4	
22	Kansas City, Mo.			7	338	3	226	h 2	11,941	1	17		
23	St. Paul, Minn.			1	74	6	416	f 1	1,667	3	3,492		
24	Rochester, N. Y.			1	454	7	642			4	4,095		
25	Denver, Colo.					2	350	2	243	3	2,009		
26	Toledo, Ohio.			1	175	2	145			2	212		
27	Allegheny, Pa.	1	342	2	165	6	811	e 1	23	3	2,239		
28	Columbus, Ohio			1	350	1	25	3	432	6	4,140		
29	Worcester, Mass.	1	228			4	374	k 3	5,687	5	3,393		
30	Syracuse, N. Y.			1	209	3	491			3	1,211		
31	New Haven, Conn.	1	394			2	465			2	1,627		
32	Paterson, N. J.	1	1,186	2	36	(m)	(m)	2	189	1	151	3	5,406
33	Fall River, Mass.	1	125			3	504	1	437	2	315		
34	St. Joseph, Mo.			1	15	1	55	1	(c)				
35	Omaha, Nebr.			1	222	1	86			5	1,554		
36	Los Angeles, Cal.			3	(c)	5	708	e 1	(c)	4	4,486		
37	Memphis, Tenn.			2	115	4	238	1	(c)	3	(c)		
38	Scranton, Pa.			1	448	4	467			4	1,806		
39	Lowell, Mass.	1	378			2	72			3	1,694		
40	Albany, N. Y.	1	130			5	904			6	2,652		
41	Cambridge, Mass.	1	107	2	50	1	40			2	737		
42	Portland, Oreg.					3	110	n 1	10	2	3,418		
43	Atlanta, Ga.					6	237	1	2,800				
44	Grand Rapids, Mich.			3	140	2	200	o 1	60	3	1,191		
45	Dayton, Ohio.			1	110	1	48	1	12	2	2,745		
46	Richmond, Va.	1	229	5	226	8	301	p 2	807	6	1,569		
47	Nashville, Tenn.			6	146			1	1,273				
48	Seattle, Wash.					1	33	o 1	18	2	1,886		
49	Hartford, Conn.	1	226			2	160			2	2,300		
50	Reading, Pa.			1	303	2	106			3	2,094		
51	Wilmington, Del.			4	585	4	343			2	3,255		
52	Camden, N. J.			3	460	1	21			8	24,965		
53	Trenton, N. J.	1	61					o 1	5	1	205		
54	Bridgeport, Conn.	1	175			1	50	2	1,895	1	779		
55	Lynn, Mass.	1	105			1	23	o 1	70	1	965		
56	Oakland, Cal.			1	908	4	436	q 1	914	3	1,633		
57	Lawrence, Mass.	1	187			1	200						
58	New Bedford, Mass.	1	86			1	35			1	462		
59	Des Moines, Iowa.									1	700		
60	Springfield, Mass.	1	169					1	151	2	1,299		
61	Somerville, Mass.	1	18							1	321		
62	Troy, N. Y.			1	273			2	424	3	1,961		
63	Hoboken, N. J.									1	2,427		
64	Evansville, Ind.			1	112	2	72			2	554		
65	Manchester, N. H.	1	8			2	(c)			3	747		

a Including 2 idiot asylums.

b Isolation hospital.

c Not reported.

d Including 838 insane persons.

e Pesthouse. f Not in use.

g Including 1 contagious hospital.

h Including 1 detention hospital.

i Not including patients treated at detention hospital.

j Owned jointly by city and county.

k Including 1 isolation hospital.

l Including a number of orphans.

m A number of orphans are cared for at almshouse.

n Smallpox hospital.

o Contagious hospital.

p Contagious hospitals.

q Receiving hospital.

TABLE XI.—CHARITIES: ALMSHOUSES, CHARITABLE HOMES, ETC., ORPHAN ASYLUMS, AND HOSPITALS—Concluded.

Marginal number.	Cities.	Alms-houses, charita- ble homes, etc.				Orphan asylums.				Hospitals.			
		Municipal.		Other.		Municipal.		Other.		Municipal.		Other.	
		No.	Average number of inmates.	No.	Average number of inmates.	No.	Average number of inmates.	No.	Average number of inmates.	No.	Number of patients treated.	No.	Number of patients treated.
66	Utica, N. Y.			1	147	2	801			1	362	4	1,576
67	Peoria, Ill.			1	400							2	1,198
68	Charleston, S. C.	2	a 156			1	240	9	404	1	1,497	1	371
69	Savannah, Ga.			(b)	(b)			8	425			4	1,881
70	Salt Lake City, Utah.							1	85	c 1		1	80
71	San Antonio, Tex.			1	225			3	315	1	512	1	90
72	Duluth, Minn.			1	54							3	2,463
73	Erie, Pa.			1	d 195			1	190			2	723
74	Elizabeth, N. J.	1	53							c 1		2	(b)
75	Wilkesbarre, Pa.			1	230			1	63			2	1,408
76	Kansas City, Kans.							1	35			3	3,215
77	Harrisburg, Pa.			1	178			2	84			1	1,954
78	Portland, Me.	2	175					2	160	1	225	2	2,852
79	Yonkers, N. Y.									c 1	25	3	1,136
80	Norfolk, Va.	1	87	1	9			4	124	e 1	f 532	2	2,682
81	Waterbury, Conn.			1	60							1	394
82	Holyoke, Mass.	1	103					2	g 21	c 1	81	3	788
83	Fort Wayne, Ind.			1	125			3	275				
84	Youngstown, Ohio.									h 1	1	2	758
85	Houston, Tex.			1	70			3	64			1	96
86	Covington, Ky.			2	55			3	110	h 1	(b)	1	594
87	Akron, Ohio.							1	57			1	265
88	Dallas, Tex.			1	45			2	120	1	667		
89	Saginaw, Mich.			1	54			2	153			3	908
90	Lancaster, Pa.			1	d 50			2	9			3	833
91	Lincoln, Nebr.			1	26							1	348
92	Brockton, Mass.	1	34	1	7							1	238
93	Binghamton, N. Y.			1	126			2	242	1	312		
94	Augusta, Ga.							3	227	i 3	1,602		
95	Pawtucket, R. I.	1	16									2	2,096
96	Altoona, Pa.			1	46			1	25			2	856
97	Wheeling, W. Va.			1	12			1	30	h 1	1	2	1,200
98	Mobile, Ala.			2	14			7	233	1	615	1	453
99	Birmingham, Ala.			1	85							2	
100	Little Rock, Ark.			3	71			1	25	1	240		800
101	Springfield, Ohio.			4	496					1	371		
102	Galveston, Tex.			1	90			3	350	1	5,263	2	
103	Tacoma, Wash.							1	50	j 1	(b)	3	1,736
104	Haverhill, Mass.	1	105					1	35			1	320
105	Spokane, Wash.			1				2	143	c 1	48	2	1,281
106	Terre Haute, Ind.			1	75			2	130			1	620
107	Dubuque, Iowa.			3	115			1	80			3	1,060
108	Quincy, Ill.			k 7	k 1,682			2	66			2	1,369
109	South Bend, Ind.			1	105							2	287
110	Salem, Mass.	1	110					2	193			2	469
111	Johnstown, Pa.			1	90							2	1,980
112	Elmira, N. Y.							1	40			1	380
113	Allentown, Pa.			1	240							1	m 168
114	Davenport, Iowa.			2	28			2	526			2	684
115	McKeesport, Pa.			1	d 50							1	981
116	Springfield, Ill.							2	78			3	n 1,060
117	Chelsea, Mass.							1	30			4	1,866
118	Malden, Mass.	1	33	1	8			1				1	307
119	Topeka, Kans.			1	40							3	1,077
120	Sioux City, Iowa.												
121	Knoxville, Tenn.			6	147			2	38	1	129		
122	Chattanooga, Tenn.			4	99			1	25	1	(b)		
123	Superior, Wis.			1	48							2	1,317
124	Rockford, Ill.									o 1	(b)	2	471
125	Taunton, Mass.	1	50									2	1,436
126	Joliet, Ill.			1	100			1	52			2	1,259
127	Canton, Ohio.									h 1	3		
128	Butte, Mont.											2	3,455
129	Auburn, N. Y.							1	65			1	329

a Not including 389 persons fed by almshouse.

b Not reported. c Contagious hospital.

d From city only.

e Smallpox hospital.

f Not including 159 patients treated in hospital wards of jail and almshouse.

g Public charges only.

h Pesthouse.

i Including 1 smallpox hospital.

j Owned by city; operated by county.

k Including Illinois Soldiers' Home, with 1,567 inmates.

l Including hospital connected with orphan asylum.

m Data are for 8 months.

n Not including patients in 1 hospital not reported.

o Pesthouse owned jointly by city and county.

TABLE XII.—COST OF WATER, GAS, AND ELECTRIC-LIGHT PLANTS OWNED AND OPERATED BY CITIES.

Marginal number.	Cities.	Waterworks.			Gas works.			Electric-light plants.		
		Owned and operated by city.	Year built or acquired by city.	Cost.	Owned and operated by city.	Year built or acquired by city.	Cost.	Owned and operated by city.	Year built or acquired by city.	Cost.
1	New York, N. Y.	Yes	(a)	\$115,526,748	No.			No.		
2	Chicago, Ill.	Yes	1851	32,467,621	No.			Yes	(b)	\$1,955,272
3	Philadelphia, Pa.	Yes	1801	35,171,881	(c)	1836	\$10,000,000	No.		
4	St. Louis, Mo.	Yes	1835	17,671,085	No.			No.		
5	Boston, Mass.	Yes	1848	22,689,784	No.			No.		
6	Baltimore, Md.	Yes	1854	15,575,790	No.			No.		
7	Cleveland, Ohio.	Yes	1857	9,393,966	No.			No.		
8	Buffalo, N. Y.	Yes	1868	9,069,870	No.			No.		
9	San Francisco, Cal.	No.			No.			No.		
10	Cincinnati, Ohio.	Yes	1840	12,000,000	No.			No.		
11	Pittsburg, Pa.	Yes	1872	7,016,635	No.			No.		
12	New Orleans, La.	No.			No.			No.		
13	Detroit, Mich.	Yes	1836	6,061,110	No.			Yes	1895	813,803
14	Milwaukee, Wis.	Yes	1872	4,698,653	No.			No.		
15	Washington, D. C.	(d)	1879	1,456,000	No.			No.		
16	Newark, N. J.	Yes	1889	7,436,719	No.			No.		
17	Jersey City, N. J.	Yes	1854	5,000,000	No.			No.		
18	Louisville, Ky.	Yes	(e)	6,446,981	No.			No.		
19	Minneapolis, Minn.	Yes	1868	4,239,517	No.			No.		
20	Providence, R. I.	Yes	1871	6,855,506	No.			No.		
21	Indianapolis, Ind.	Yes	1897	27,750	No.			No.		
22	Kansas City, Mo.	Yes	1895	4,000,000	No.			No.		
23	St. Paul, Minn.	Yes	1882	4,562,421	No.			No.		
24	Rochester, N. Y.	Yes	1873	7,297,486	No.			No.		
25	Denver, Colo.	Yes	1889	160,000	No.			No.		
26	Toledo, Ohio.	Yes	1874	1,804,518	Yes	1899	1,110,000	No.		
27	Allegheny, Pa.	Yes	1847	2,216,141	No.			Yes	1890	385,892
28	Columbus, Ohio.	Yes	1871	2,363,693	No.			No.		
29	Worcester, Mass.	Yes	1845	3,300,031	No.			No.		
30	Syracuse, N. Y.	Yes	1892	4,164,015	No.			No.		
31	New Haven, Conn.	No.			No.			No.		
32	Paterson, N. J.	No.			No.			No.		
33	Fall River, Mass.	Yes	1874	1,914,968	No.			No.		
34	St. Joseph, Mo.	No.			No.			No.		
35	Omaha, Nebr.	No.			No.			No.		
36	Los Angeles, Cal.	No.			No.			No.		
37	Memphis, Tenn.	No.			No.			No.		
38	Scranton, Pa.	No.			No.			No.		
39	Lowell, Mass.	Yes	1873	2,553,399	No.			No.		
40	Albany, N. Y.	Yes	1850	(c)	No.			No.		
41	Cambridge, Mass.	Yes	1865	5,619,016	No.			No.		
42	Portland, Oreg.	Yes	1887	3,960,309	No.			No.		
43	Atlanta, Ga.	Yes	1874	1,879,570	No.			No.		
44	Grand Rapids, Mich.	Yes	1874	1,435,166	No.			Yes	1899	186,254
45	Dayton, Ohio	Yes	1870	1,500,000	No.			No.		
46	Richmond, Va.	Yes	1830	2,000,000	Yes	1851	950,000	No.		
47	Nashville, Tenn.	Yes	1832	2,000,000	No.			No.		
48	Seattle, Wash.	Yes	1890	1,399,676	No.			No.		
49	Hartford, Conn.	Yes	1854	2,874,857	No.			No.		
50	Reading, Pa.	Yes	1865	1,838,660	No.			No.		
51	Wilmington, Del.	Yes	1827	1,698,354	No.			No.		
52	Camden, N. J.	Yes	(g)	2,500,000	No.			No.		
53	Trenton, N. J.	Yes	1855	1,584,508	No.			No.		
54	Bridgeport, Conn.	No.			No.			No.		
55	Lynn, Mass.	Yes	1870	2,427,561	No.			No.		
56	Oakland, Cal.	No.			No.			No.		
57	Lawrence, Mass.	Yes	1873	2,281,024	No.			No.		
58	New Bedford, Mass.	Yes	1866	8,055,784	No.			No.		
59	Des Moines, Iowa	No.			No.			No.		
60	Springfield, Mass.	Yes	1873	2,115,576	No.			No.		
61	Somerville, Mass.	(h)	1868	741,558	No.			No.		
62	Troy, N. Y.	Yes	1833	1,800,019	No.			No.		

a Four plants, 1826, 1857, 1874, 1897.

b Various.

c Owned by city, but leased to private company.

d City owns distributing system only.

e Not reported.

f Small plant furnishing water to suburb recently annexed.

g Two plants, 1870, 1899.

h City owns pumping works and distributing system only.

TABLE XII.—COST OF WATER, GAS, AND ELECTRIC-LIGHT PLANTS OWNED AND OPERATED BY CITIES—Concluded.

Marginal number.	Cities.	Waterworks.			Gas works.			Electric-light plants.		
		Owned and operated by city.	Year built or acquired by city.	Cost.	Owned and operated by city.	Year built or acquired by city.	Cost.	Owned and operated by city.	Year built or acquired by city.	Cost.
63	Hoboken, N. J.	(a)	(b)	(b)	No.			No.		
64	Evansville, Ind.	Yes..	1870	\$833,097	No.			No.		
65	Manchester, N. H.	Yes..	1873	1,483,702	No.			No.		
66	Utica, N. Y.	No.			No.			No.		
67	Peoria, Ill.	No.			No.			No.		
68	Charleston, S. C.	No.			No.			No.		
69	Savannah, Ga.	Yes..	1853	1,031,849	No.			No.		
70	Salt Lake City, Utah.	Yes..	1874	3,000,000	No.			No.		
71	San Antonio, T'x.	No.			No.			No.		
72	Duluth, Minn.	Yes..	1898	1,900,000	Yes..	1898	\$456,000	No.		
73	Erie, Pa.	Yes..	1868	1,716,015	No.			No.		
74	Elizabeth, N. J.	No.			No.			No.		
75	Wilkesbarre, Pa.	No.			No.			No.		
76	Kansas City, K's	No.			No.			No.		
77	Harrisburg, Pa.	Yes..	1840	657,172	No.			No.		
78	Portland, Me.	No.			No.			No.		
79	Yonkers, N. Y.	Yes..	1874	1,549,079	No.			No.		
80	Norfolk, Va.	Yes..	1872	1,116,948	No.			No.		
81	Waterbury, Conn.	Yes..	1866	1,339,200	No.			No.		
82	Holyoke, Mass.	Yes..	1872	1,147,303	No.			No.		
83	Fort Wayne, Ind.	Yes..	1879	743,592	No.			No.		
84	Youngstown, O.	Yes..	1872	678,600	No.			No.		
85	Houston, Tex.	No.			No.			No.		
86	Covington, Ky.	Yes..	1891	1,166,000	No.			No.		
87	Akron, Ohio.	No.			No.			No.		
88	Dallas, Tex.	Yes..	1882	1,166,288	No.			No.		
89	Saginaw, Mich.	Yes..	1872	900,000	No.			No.		
90	Lancaster, Pa.	Yes..	1836	848,459	No.			No.		
91	Lincoln, Nebr.	Yes..	1885	386,460	No.			No.		
92	Brockton, Mass.	Yes..	1880	890,462	No.			No.		
93	Binghamton, N. Y.	Yes..	1867	709,928	No.			No.		
94	Augusta, Ga.	Yes..	1859	482,021	No.			No.		
95	Pawtucket, R. I.	Yes..	1878	1,820,537	No.			No.		
96	Altoona, Pa.	Yes..	1873	657,850	No.			No.		
97	Wheeling, W. Va.	Yes..	1834	694,700	Yes..	1875	405,314	Yes..	1892	\$131,483
98	Mobile, Ala.	Yes..	1899	523,479	No.			No.		
99	Birmingham, Ala.	No.			No.			No.		
100	Little Rock, Ark.	No.			No.			Yes..	1888	86,000
101	Springfield, Ohio.	Yes..	1881	675,184	No.			No.		
102	Galveston, Tex.	Yes..	1888	1,554,455	No.			Yes..	1889	84,050
103	Tacoma, Wash.	Yes..	1893	1,204,830	No.			Yes..	1893	450,000
104	Haverhill, Mass.	Yes..	1891	1,260,281	No.			No.		
105	Spokane, Wash.	Yes..	1885	1,250,000	No.			No.		
106	Terre Haute, Ind.	No.			No.			No.		
107	Dubuque, Iowa	No.			No.			No.		
108	Quincy, Ill.	No.			No.			No.		
109	South Bend, Ind.	Yes..	1873	379,778	No.			No.		
110	Salem, Mass.	Yes..	1869	1,913,144	No.			No.		
111	Johnstown, Pa.	No.			No.			No.		
112	Elmira, N. Y.	No.			No.			No.		
113	Allentown, Pa.	Yes..	1865	371,500	No.			No.		
114	Davenport, Iowa.	No.			No.			No.		
115	McKeesport, Pa.	Yes..	1882	393,012	No.			No.		
116	Springfield, Ill.	Yes..	1866	811,730	No.			No.		
117	Chelsea, Mass.	Yes..	1867	400,000	No.			No.		
118	Malden, Mass.	Yes..	1869	1,040,806	No.			No.		
119	Topeka, Kans.	No.			No.			Yes..	1889	68,458
120	Sioux City, Iowa.	Yes..	1886	450,715	No.			No.		
121	Knoxville, Tenn.	No.			No.			No.		
122	Chattanooga, T'n.	No.			No.			No.		
123	Superior, Wis.	No.			No.			No.		
124	Rockford, Ill.	Yes..	1875	629,062	No.			No.		
125	Taunton, Mass.	Yes..	1876	1,219,559	No.			Yes..	1897	141,723
126	Joliet, Ill.	Yes..	1883	325,000	No.			No.		
127	Canton, Ohio.	Yes..	1869	534,000	No.			No.		
128	Butte, Mont.	No.			No.			No.		
129	Auburn, N. Y.	Yes..	1894	529,366	No.			No.		

a City owns distributing system only.

b Not reported.

TABLE XIII.—DEBT, BASIS OF ASSESSMENT, ASSESSED VALUATION OF PROPERTY, AND TAXATION.

Marginal number.	Cities.	Debt.			Sinking fund.	Net debt.	Legal borrowing limit.
		Bonded.	Floating.	Total.			
1	New York, N. Y.	a \$358,256,572	\$4,012,571	a \$362,269,143	\$110,636,438	a \$251,632,705	10% (b)
2	Chicago, Ill. (j)	22,367,050	9,161,383	31,528,433	2,364,710	29,163,723	5% (k)
3	Philadelphia, Pa.	55,443,145	1,329,085	56,772,230	15,561,200	41,211,030	7% (m)
4	St. Louis, Mo.	19,105,594	.....	19,105,594	.....	19,105,594	5% (k)
5	Boston, Mass.	p 86,996,979	.....	p 86,996,979	q 27,697,094	r 59,299,885	2% (s)
6	Baltimore, Md.	39,140,183	.....	39,140,183	6,212,077	32,928,106	No limit
7	Cleveland, Ohio.	13,425,360	1,184,031	14,610,391	2,377,871	12,233,020	7% (k)
8	Buffalo, N. Y.	15,555,605	.....	15,555,605	1,371,089	14,184,516	10% (b)
9	San Francisco, Cal.	2,136,500	2,543,635	4,680,135	217,504	4,462,631	15% (k)
10	Cincinnati, Ohio.	29,190,957	.....	29,190,957	1,927,644	27,263,313	No limit
11	Pittsburg, Pa.	15,236,702	1,333,892	16,570,594	4,678,324	11,892,270	7% (k)
12	New Orleans, La.	14,293,490	263,225	14,556,715	.....	14,556,715	(cc)
13	Detroit, Mich.	6,503,996	2,300	6,506,296	1,896,564	4,609,732	2% (k)
14	Milwaukee, Wis.	6,923,506	425,562	7,349,062	.....	6,349,062	5% (pp)
15	Washington, D. C.	15,888,200	.....	15,888,200	713,916	15,174,284	(j)
16	Newark, N. J.	14,429,000	1,862,500	16,291,500	3,857,529	12,433,980	No limit
17	Jersey City, N. J.	18,060,883	1,451,028	19,511,911	2,762,020	16,749,892	No limit
18	Louisville, Ky.	9,688,000	101,004	9,789,004	785,116	9,003,888	10% (k)
19	Minneapolis, Minn.	8,415,000	.....	8,415,000	1,736,817	6,678,683	5% (k)
20	Providence, R. I.	17,431,000	636,985	18,067,985	3,725,818	14,342,167	3% (nn)
21	Indianapolis, Ind.	2,392,800	701,275	3,094,075	.....	3,094,075	2% (k)
22	Kansas City, Mo.	4,938,900	.....	4,938,900	qq 353,474	4,585,425	5% (k)
23	St. Paul, Minn.	8,121,100	.....	8,121,100	612,993	7,508,107	No limit
24	Rochester, N. Y.	9,116,000	1,448,646	10,564,646	561,884	10,002,762	10% (b)
25	Denver, Colo.	rr 2,453,800	rr 411,734	ur 2,865,534	234,251	ur 2,631,283	3% (vv)
26	Toledo, Ohio.	6,030,919	383,230	6,414,149	672,374	5,741,775	No limit
27	Allentown, Pa.	7,028,063	.....	7,028,063	1,406,323	5,621,740	7% (k)
28	Columbus, Ohio.	8,044,600	365,068	8,409,668	2,350,322	6,059,346	No limit
29	Worcester, Mass.	8,962,000	.....	8,962,000	3,613,703	5,348,297	24% (zz)
30	Syracuse, N. Y.	6,623,694	755,635	7,379,329	.....	7,379,329	10% (b)
31	New Haven, Conn.	2,918,200	661,029	3,579,229	217,383	3,361,846	(cc)
32	Paterson, N. J.	2,928,600	507,220	3,435,820	.....	3,435,820	10% (b)
33	Fall River, Mass.	4,919,250	81,088	5,000,338	1,311,904	3,688,434	24% (zz)
34	St. Joseph, Mo.	1,473,950	6,654	1,480,604	25,444	1,455,160	5% (k)
35	Omaha, Nebr.	5,611,800	55,831	5,667,631	.....	5,667,631	10% (k)
36	Los Angeles, Cal.	1,612,700	70,004	1,682,704	90,275	1,592,429	15% (aaa)
37	Memphis, Tenn.	3,109,000	.....	3,109,000	80,293	3,028,707	(cc)
38	Scranton, Pa.	993,000	87,005	1,080,005	226,090	853,915	7% (k)
39	Lowell, Mass.	3,876,820	.....	3,876,820	567,955	3,308,865	24% (zz)
40	Albany, N. Y.	4,784,120	.....	4,784,120	1,446,299	3,337,821	10% (b)
41	Cambridge, Mass.	7,622,500	.....	7,622,500	1,596,318	6,026,182	24% (zz)
42	Portland, Oreg.	5,577,946	14,173	5,592,119	2,794	5,589,325	(cc)

a Not including \$565,000 not yet approved and \$3,810,227 in litigation.

b Of assessed valuation of real estate.

c Including \$936,200 liable for taxes for State purposes only.

d Including \$86,021,982 exempt from local taxes for State purposes.

e Including \$936,200 liable for taxes for State purposes only and \$86,021,982 exempt from local taxes for State purposes.

f Varies in different boroughs from \$1.48 to \$2.04.

g Varies in different boroughs from \$0.85 to \$2.18.

h Deficiencies for 1898: varies in different boroughs from \$0.21 to \$9.18.

i Varies in different boroughs from \$24.24 to \$32.74, with discount of 6 per cent per annum to Dec. 1 if paid before Nov. 1.

j Not including data relating to sanitary district of Chicago.

k Of assessed valuation.

l School, \$20; library, \$0.64.

m Of assessed valuation of real estate; may be increased by vote of people.

n Not including State tax of \$4 on mortgages, securities, stocks, bonds, etc.

o School, \$4; library, \$0.20.

p Including \$3,533,000 of county bonds.

q Including \$548,746 of county sinking fund.

r Including \$2,984,254 of county debt.

s Of average valuation for 10 years.

t School.

u In city proper; in annex, \$6; on securities, \$3.

v In city proper; in annex, \$7.78; on securities, \$4.78.

w Included in county.

z Including State.

y Lamp tax.

z Included in city.

aa Including county.

bb School, \$4.48; county library, \$0.30.

cc City proper, 100; suburban districts, 66; agricultural districts, 33.

dd Not including ward school tax of from \$0.14 to \$7 and State tax of \$4 on mortgages, securities, stocks, bonds, etc.

TABLE XIII.—DEBT, BASIS OF ASSESSMENT, ASSESSED VALUATION OF PROPERTY, AND TAXATION.

Basis of assessment of property—per cent of full value.		Assessed valuation of property.			Tax rate per \$1,000.					Marginal number.
Real.	Personal.	Real.	Personal.	Total.	State.	County.	City.	Other.	Total.	
70	100	c\$2,932,445,464	d\$545,906,565	e\$3,478,352,029	(f)	(g)	\$19.80	(h)	(i)	1
20	20	260,265,058	84,931,361	345,196,419	\$4.20	\$6.50	16.27	l\$20.64	\$47.61	2
80	100	879,296,355	1,639,910	880,935,265			18.50		n 18.50	3
66½	100	307,540,240	65,830,673	373,369,913	2.50		12.80	o 4.20	19.50	4
100	100	866,809,700	222,926,552	1,089,736,252	.55	.95	8.95	t 2.65	13.10	5
100	100	247,505,456	140,736,564	388,242,020	1.78		u 19.80	t 9.30	v 21.58	6
50	50	108,265,890	36,806,095	145,071,985	2.84	3.76	13.50	y 7.75	23.29	7
100	100	230,425,620	15,249,110	245,674,630	(w)	x 4.50	18.04		23.29	8
100	100	282,769,730	69,574,331	352,344,061	4.88	(z)	aa 11.72	bb 4.78	18.06	9
63	63	160,282,010	40,538,530	200,820,540	2.84	3.88	14.24		25.74	10
(cc)	100	315,271,937	1,802,284	317,174,221		2.00	15.00		dd 17.00	11
100	100	103,000,000	38,000,000	141,000,000	7.00		22.00		29.00	12
70	70	171,343,730	45,627,270	216,971,000	1.61	1.14	9.81	ff 6.52	19.08	13
60	60	124,708,830	27,268,074	151,971,904	1.77	2.85	hh 10.68	ii 6.77	hh 22.07	14
(kk)	60	183,156,871	13,431,475	196,587,846			(ll)		(ll)	15
100	100	116,585,325	29,072,213	145,657,738	(z)	6.61	x 14.59		21.20	16
100	100	83,900,055	8,121,041	92,021,096	2.66	5.87	19.87		28.40	17
75	75	89,636,687	30,059,360	119,695,947	5.25	1.70	15.10	t 3.30	25.35	18
60	60	87,654,550	19,074,715	106,729,265	1.50	3.00	13.52	mm 7.13	25.15	19
100	100	146,701,900	41,799,880	188,501,780	1.80		9.10	oo 5.60	16.50	20
66½	66½	88,875,345	34,420,495	123,295,840	2.97	3.83	6.00	pp 5.20	18.00	21
40	40	52,709,790	18,352,345	71,062,135	2.50	3.50	11.50	rr 11.30	28.80	22
60	60	78,918,440	14,977,140	93,895,580	2.93	4.37	14.90		22.20	23
80	80	102,163,550	8,267,422	110,430,972	2.27	2.25	17.27		21.79	24
50	50	(uu)		62,202,405	4.30	12.00	15.30	t 6.10	37.70	25
40	40	38,968,940	12,811,466	51,780,406	2.84	5.86	16.80	t 7.70	33.20	26
(cc)	100	82,582,800	1,228,300	83,811,100		1.50	13.50	xx 3.80	yy 18.80	27
50	50	51,093,530	13,251,460	64,344,990	2.84	5.85	12.21	t 6.60	27.50	28
100	100	83,478,100	28,857,999	112,336,099	.26	.74	15.00		16.00	29
100	100	68,524,851	12,234,383	80,759,234	1.96	2.03	15.34		19.30	30
66½	66½	53,856,511	13,366,064	67,222,575			16.00	t 5.00	21.00	31
60	50	39,752,767	7,822,796	47,575,563		6.58	15.80	t 2.62	25.00	32
100	100	44,868,550	26,733,120	71,601,670	.29	1.25	16.26		17.80	33
50	50	14,764,430	7,150,310	21,914,740	2.50	4.50	15.50	t 6.00	28.50	34
33½	33½	28,788,815	6,115,884	34,907,399	8.28	16.90	22.00	t 3.00	50.18	35
100	100	62,178,014	3,496,268	65,674,282	4.88	8.46	12.50	bbb 3.76	29.60	36
60	60	31,967,358	5,831,586	37,788,944	3.50	6.30	(ccc)	(ddd)	37	37
100	100	21,543,536	176,355	21,719,891		7.00	12.80	ccc 17.50	n 37.30	38
100	100	55,881,355	15,374,232	71,255,587	.70	.98	17.92		19.60	39
90	90	59,418,890	7,422,406	66,841,296	1.91	4.19	16.50		22.60	40
100	100	74,550,800	16,991,995	91,542,795	.27	.94	14.83	fff 1.06	17.10	41
40	40	32,170,716	6,514,695	38,685,411	10.70	7.80	8.00	ggg 5.50	32.00	42

cc Controlled by legislation.

ff School, \$3.42; police, \$2.43; highway, \$0.67.

gg Of average assessed valuation for 5 years.

hh Average.

ii Sinking fund, \$3.64; average school, \$3.13.

jj Controlled by Congress.

kk Value at forced sale.

ll City rate, \$15; agricultural rate, \$10.

mm School, \$5.90; State school, \$1.23.

nn Of assessed valuation plus sinking fund

oo Interest and sinking fund.

pp School, \$5; township, \$0.20.

qq Face value.

rr School, \$3; park, \$3; township, \$0.30.

ss Not including \$990,950 special assessment bonds against private property.

tt Not including special assessment warrants and accrued interest on bonds.

uu Not including special assessment bonds and warrants and accrued interest on bonds.

vv Of assessed valuation, not including water debt.

ww Not reported.

xx School, \$3; county road, \$0.50; sewer, \$0.30.

yy Not including ward school tax of from \$0.50 to \$5.50 and State tax of \$4 on mortgages, securities, stocks, bonds, etc.

zz Of average assessed valuation for 3 years.

aaa Of assessed valuation, but not to exceed \$2,000,000 except for waterworks or lighting plants.

bbb County school, \$3.20; county road, \$0.40; city high school, \$0.16.

ccc \$22.40 in 8 wards; \$17.20 in 3 wards; \$16.70 in 3 wards; \$16.40 in 8 wards.

ddd \$22.20 in 8 wards; \$27 in 3 wards; \$26.50 in 3 wards; \$26.20 in 8 wards.

eee School, \$14; poor, \$3.50.

fff Metropolitan sewer.

ggg School, \$4; port of Portland, \$1.50.

TABLE XIII.—DEBT, BASIS OF ASSESSMENT, ASSESSED VALUATION OF PROPERTY, AND TAXATION—Continued.

Mar- ginal num- ber.	Cities.	Debt.			Sinking fund.	Net debt.	Legal bor- rowing limit.
		Bonded.	Flout- ing.	Total.			
43	Atlanta, Ga.	\$2,927,500		\$2,927,500	\$118,590	\$2,808,910	7% (a)
44	Grand Rapids, Mich.	2,087,000		2,087,000	136,176	1,950,824	(b)
45	Dayton, Ohio	3,701,000		3,701,000	138,057	3,562,943	No limit.
46	Richmond, Va.	7,227,382		7,227,382	370,778	6,856,604	18% (d)
47	Nashville, Tenn.	3,413,500		3,413,500		3,413,500	No limit.
48	Seattle, Wash.	e 4,270,000	\$800,065	g 4,570,065		g 4,570,065	10% (a)
49	Hartford, Conn.	3,878,000	373,519	4,251,519	450,012	3,801,507	(h)
50	Reading, Pa.	1,443,500		1,443,500	71,933	1,371,567	7% (a)
51	Wilmington, Del.	2,021,100	4,681	2,025,781		2,025,781	(h)
52	Camden, N. J.	2,475,000	68,505	2,543,505	89,733	2,453,772	10% (a)
53	Trenton, N. J.	2,966,566	770,930	3,737,496	1,167,920	2,569,576	No limit.
54	Bridgeport, Conn.	1,653,000	14,500	1,667,500	367,594	1,299,906	(h)
55	Lynn, Mass.	4,274,950	530,000	4,804,950	1,129,804	3,675,146	2½% (n)
56	Oakland, Cal.	487,500		487,500	3,000	484,500	15% (a)
57	Lawrence, Mass.	2,194,000	93,098	2,287,098	798,936	1,488,162	2½% (n)
58	New Bedford, Mass.	3,638,000	180,000	3,818,000	736,180	3,081,820	2½% (n)
59	Des Moines, Iowa.	q 770,000	q 65,000	q 835,000	63,047	q 771,953	5% (a)
60	Springfield, Mass.	2,493,800	48,273	2,542,073	506,654	2,035,419	2½% (n)
61	Somerville, Mass.	1,492,500	310,000	1,802,500		1,802,500	2½% (n)
62	Troy, N. Y.	1,576,606		1,576,606	77,372	1,499,234	10% (d)
63	Hoboken, N. J.	1,458,500	115,800	1,574,300	68,251	1,506,049	(h)
64	Evansville, Ind.	2,155,000		2,155,000	10,008	2,144,992	2% (a)
65	Manchester, N. H.	1,920,000	19,726	1,939,726	232,733	1,706,993	5% (v)
66	Utica, N. Y.	344,041		344,041		344,041	10% (a)
67	Peoria, Ill.	666,032	294,500	960,532	285,000	675,532	5% (a)
68	Charleston, S. C.	3,799,550		3,799,550	1,350	3,798,200	8% (a)
69	Savannah, Ga.	3,237,750		3,237,750		3,237,750	7% (a)
70	Salt Lake City, Utah	3,268,000	256,628	3,524,628	109,274	3,415,354	4% (v)
71	San Antonio, Tex.	2,021,000	208,871	2,229,871	14,166	2,215,705	8% (a)
72	Duluth, Minn.	5,935,250	179,439	6,114,689	104,247	6,010,442	5% (a)
73	Erie, Pa.	946,500		946,500	166,990	779,510	2% (bb)
74	Elizabeth, N. J.	3,248,340		3,248,340	14,619	3,233,721	No limit.
75	Wilkesbarre, Pa.	589,700	12,048	601,748	9,007	592,741	2% (bb)
76	Kansas City, Kans.	1,769,222	111,983	1,881,205	120,000	1,761,205	6% (a)
77	Harrisburg, Pa.	1,397,600		1,397,600	134,912	1,262,688	7% (a)
78	Portland, Me.	2,967,750	124,448	2,992,198	1,675,649	1,316,549	5% (a)
79	Yonkers, N. Y.	3,555,323		3,555,323	283,954	3,271,369	10% (a)
80	Norfolk, Va.	4,095,150	75,749	4,170,899	410,386	3,760,513	20% (a)
81	Waterbury, Conn.	f 880,000	f 25,000	f 905,000	543	f 904,457	No limit.
82	Holyoke, Mass.	2,184,000	100,000	2,284,000	720,228	1,563,772	2½% (n)
83	Fort Wayne, Ind.	634,000		634,000	6,599	627,401	2% (a)
84	Youngstown, Ohio.	640,120	25,000	665,120		665,120	No limit.
85	Houston, Tex.	2,347,800	101,594	2,449,394		2,449,394	No limit.
86	Covington, Ky.	2,185,200	36,500	2,221,700	26,156	2,195,544	10% (a)
87	Akron, Ohio	536,400		536,400	58,351	478,049	7% (a)
88	Dallas, Tex.	1,845,000		1,845,000	157,772	1,687,228	\$2,000,000.
89	Saginaw, Mich.	1,356,580		1,356,580	61,450	1,295,130	No limit.
90	Lancaster, Pa.	1,299,958	7,272	1,307,230	540,458	766,772	7% (a)
91	Lincoln, Nebr.	1,542,823	219,178	1,762,001	44,787	1,717,214	(h)
92	Brockton, Mass.	1,964,540	64,000	2,028,540	306,129	1,722,411	2½% (n)
93	Binghamton, N. Y.	634,500	10,680	645,180		645,180	10% (a)

a Of assessed valuation.

b Controlled by vote of people.

c School.

d Of assessed valuation of real estate.

e Not including \$220,898 local improvement bonds.

f Not including \$222,180 local improvement warrants.

g Not including \$443,078 local improvement bonds and warrants.

h Controlled by legislation.

i City rate; agricultural rate, \$6; not including school district tax of from \$1.75 to \$7.

j Not including State tax of \$4 on mortgages, securities, stocks, bonds, etc.

k Not assessed.

l Not including personal property.

m Not reported.

n Of average assessed valuation for 3 years.

o Overlay, \$0.42; armory, \$0.10.

p Armory.

q Not including school debt.

r Metropolitan sewer.

s Included in county.

TABLE XIII.—DEBT, BASIS OF ASSESSMENT, ASSESSED VALUATION OF PROPERTY, AND TAXATION—Continued.

Basis of assessment of property—per cent of full value.		Assessed valuation of property.			Tax rate per \$1,000.					Marginal number.
Real.	Personal.	Real.	Personal.	Total.	State.	County.	City.	Other.	Total.	
60	100	\$40,675,227	\$11,564,831	\$52,240,058	\$5.36	\$3.74	\$12.50	.....	\$21.60	43
33½	33½	22,079,095	5,692,091	27,771,186	4.27	1.71	14.40	e\$9.94	30.32	44
55	55	32,332,220	10,232,980	42,565,200	2.84	3.76	10.75	e 8.25	25.60	45
100	100	45,185,779	24,367,042	69,552,821	4.00	.....	14.00	.....	18.00	46
75	75	29,417,796	7,011,600	36,429,396	3.50	6.00	15.00	.....	24.50	47
100	100	26,563,955	5,599,337	32,163,292	2.91	4.39	9.00	e 6.20	22.50	48
66½	66½	48,300,035	20,542,392	68,842,427	.....	.....	i 17.50	.....	i 17.50	49
100	100	43,381,649	99,030	43,480,679	.....	2.50	8.00	e 4.00	j 14.50	50
80	80	40,000,000	(k)	40,000,000	.....	6.00	9.50	e 4.50	20.00	51
100	100	24,618,462	1,881,700	26,500,162	2.80	5.40	8.30	e 5.50	22.00	52
60	60	24,941,860	5,895,724	30,835,584	2.72	6.89	12.89	.....	21.50	53
100	100	54,610,122	6,935,908	61,546,030	(m)	(m)	(m)	(m)	12.90	54
100	100	41,920,665	9,171,283	51,091,948	.53	.76	15.99	o .52	17.80	55
100	100	38,215,756	4,176,189	42,391,945	4.88	7.12	12.10	.....	24.10	56
100	100	29,775,425	8,839,297	38,614,722	.82	.75	14.21	p .12	19.20	57
100	100	35,558,750	20,548,663	56,107,413	.57	1.72	16.91	.....	19.20	58
25	25	11,065,920	3,256,030	14,324,950	3.00	11.50	35.00	e 19.20	68.70	59
90	50	53,400,770	16,469,977	69,870,747	.35	.76	12.49	.....	13.60	60
100	100	46,507,300	4,755,100	51,262,400	.21	.63	14.62	r .84	16.30	61
100	100	42,622,125	5,004,672	47,626,797	(s)	16.36	11.50	.....	17.66	62
66½	66½	26,138,800	1,909,300	28,048,100	2.70	6.00	13.50	u 2.10	24.30	63
100	100	18,574,210	6,795,850	25,370,060	2.97	6.50	10.00	e 5.95	25.42	64
70	70	25,595,943	5,895,841	31,491,784	.09	.13	19.28	.....	19.60	65
100	100	28,357,380	9,219,307	37,576,687	(s)	19.15	13.50	.....	22.65	66
20	20	5,604,674	2,438,882	8,043,556	4.20	10.00	28.10	w 42.20	84.50	67
40	100	12,394,298	4,899,160	17,293,458	8.00	2.63	26.50	.....	37.13	68
(x)	60	24,950,979	11,631,880	36,582,859	5.36	6.29	14.50	.....	26.15	69
60	60	23,540,142	7,150,062	30,690,204	8.00	4.20	7.25	z 8.45	27.90	70
60	60	24,424,008	7,178,450	31,602,458	2.00	6.20	15.00	e 3.80	27.00	71
65	65	22,716,258	3,442,777	26,159,035	2.93	2.97	8.30	aa 10.70	24.90	72
75	75	(m)	(m)	19,298,624	.....	2.50	13.50	e 8.00	j 24.00	73
100	100	15,391,400	cc 1,759,700	17,151,100	2.74	5.12	21.74	.....	29.60	74
50	50	16,630,141	1,325,039	17,955,180	.....	2.50	5.50	dd 4.88	j 12.88	75
33½	33½	5,210,772	928,092	6,138,864	5.50	14.50	24.00	e 17.60	61.60	76
100	100	(m)	(m)	25,618,000	.....	4.00	7.00	e 6.00	j 17.00	77
100	100	31,065,400	13,565,560	44,630,960	2.89	1.18	16.93	.....	21.00	78
70	70	33,478,245	3,125,210	36,603,455	2.63	3.15	16.05	.....	21.83	79
75	75	22,281,150	3,839,570	26,120,720	4.00	.....	16.00	cc 1.00	21.00	80
33½	33½	(m)	(m)	11,937,107	.....	.....	19.00	e 13.00	32.00	81
100	100	28,703,830	8,957,120	37,660,950	.19	.64	15.17	.....	16.00	82
66½	66½	18,165,250	5,454,190	23,619,440	2.97	4.03	9.40	gg 5.30	21.70	83
40	100	10,282,440	4,171,300	14,453,740	2.84	7.06	10.40	hh 12.20	32.50	84
66½	66½	19,500,994	6,250,000	25,750,994	3.80	6.00	18.00	e 2.00	29.80	85
66½	66½	(m)	(m)	21,468,444	5.25	6.00	15.50	e 3.50	30.25	86
60	60	11,853,500	5,309,840	17,163,340	2.84	3.96	9.40	e 8.00	24.20	87
66½	66½	16,762,750	5,437,275	22,200,025	3.80	4.90	12.70	e 2.30	23.70	88
96	96	12,632,625	2,304,050	14,936,675	2.80	2.20	(ii)	(ij)	.....	89
75	75	(m)	(m)	15,910,873	.....	3.00	9.00	e 5.00	j 17.00	90
25	25	4,165,320	612,515	4,777,835	8.25	19.90	38.00	e 11.00	77.15	91
100	100	23,887,765	3,670,785	27,558,550	.50	1.27	18.96	kk .87	21.60	92
100	100	18,925,090	2,186,570	21,111,660	(s)	18.60	15.00	.....	23.60	93

t Including State.

u Interest and redemption.

v Of assessed valuation, not including water debt.

w School, \$27.50; park, \$6.20; road and bridge, \$6; township, \$1.90; railroad, \$0.60.

z For city taxes, 75; for State and county, 60.

y Of assessed valuation; 4 per cent additional for water, sewers, and light.

z School, \$8.20; library, \$0.25.

aa School, \$4.30; miscellaneous, \$6.40.

bb Of assessed valuation; may be 7 per cent by vote of people.

cc Less liabilities.

dd School, \$3.75; poor, \$1.13.

ee School, \$0.50; sidewalk, \$0.50.

ff Not including debt of center school district.

gg School, \$4; township, \$1.80.

hh School, \$10; township, \$2.20.

ii East district, \$19.81; west district, \$22.98.

jj East district, \$24.81; west district, \$27.98.

kk Grade crossing, \$0.59; overlay, \$0.28.

TABLE XIII.—DEBT, BASIS OF ASSESSMENT, ASSESSED VALUATION OF PROPERTY, AND TAXATION—Concluded.

Marginal number.	Cities.	Debt.			Sinking fund.	Net debt.	Legal borrowing limit.
		Bonded.	Float- ing.	Total.			
94	Augusta, Ga.	\$1,752,300	\$150,000	\$1,902,300	\$5,831	\$1,896,469	7% (a)
95	Pawtucket, R. I.	4,000,500	622,932	4,623,432	372,326	4,251,106	3% (c)
96	Altoona, Pa.	1,104,000	21,924	1,125,924	91,291	1,034,633	7% (d)
97	Wheeling, W. Va.	496,096	32,959	529,055	.....	529,055	5% (a)
98	Mobile, Ala.	775,000	25,000	775,000	.....	775,000	No limit...
99	Birmingham, Ala.	1,610,000	246,195	1,856,195	.....	1,856,195	(j)
100	Little Rock, Ark.	118,000	126,433	244,433	16,658	227,778	(j)
101	Springfield, Ohio.	853,644	.....	853,644	.....	853,644	No limit...
102	Galveston, Tex.	3,648,500	82,646	3,731,146	892,000	2,839,146	5% (a)
103	Tacoma, Wash.	3,040,000	1,361,626	4,401,626	36,500	4,365,126	5% (g)
104	Haverhill, Mass.	1,917,000	26,269	1,943,269	458,317	1,484,952	2% (r)
105	Spokane, Wash.	2,344,272	485,796	2,830,068	61,821	2,768,247	5% (a)
106	Terre Haute, Ind.	373,000	36,000	409,000	27,482	381,518	2% (a)
107	Dubuque, Iowa	582,839	194,760	1,077,599	16,655	1,060,944	5% (a)
108	Quincy, Ill.	1,136,900	32,362	1,169,262	20,847	1,148,415	5% (a)
109	South Bend, Ind.	1,275,000	31,371	1,306,371	29,818	1,276,553	2% (a)
110	Salem, Mass.	951,450	274,078	1,225,528	217,900	1,007,628	2% (r)
111	Johnstown, Pa.	446,000	7,090	453,090	71,444	381,646	2% (e)
112	Elmira, N. Y.	1,008,500	.....	1,008,500	.....	1,008,500	10% (a)
113	Allentown, Pa.	692,700	.....	692,700	78,048	614,652	7% (a)
114	Davenport, Iowa.	275,000	48,564	323,564	.....	323,564	5% (a)
115	McKeesport, Pa.	646,100	43,000	689,100	205,516	483,584	2% (e)
116	Springfield, Ill.	899,500	156,754	1,056,254	.....	1,056,254	5% (a)
117	Chelsea, Mass.	1,419,200	175,000	1,594,200	304,149	1,290,051	2% (r)
118	Malden, Mass.	1,714,200	60,000	1,774,200	227,726	1,546,474	2% (r)
119	Topeka, Kans.	589,167	.....	589,167	7,965	581,202	No limit...
120	Sioux City, Iowa	1,819,395	144,938	1,964,333	69,039	1,895,294	5% (a)
121	Knoxville, Tenn.	1,400,600	24,173	1,424,773	20,254	1,404,519	No limit...
122	Chattanooga, Tenn.	931,000	23,000	954,000	100,000	854,000	(j)
123	Superior, Wis.	1,612,573	.....	1,612,573	256,332	1,356,241	5% (a)
124	Rockford, Ill.	291,800	255,000	546,800	.....	546,800	5% (a)
125	Taunton, Mass.	1,638,575	30,000	1,668,575	324,087	1,344,488	2% (r)
126	Joliet, Ill.	157,800	24,007	181,807	.....	181,807	5% (a)
127	Canton, Ohio.	918,532	15,999	934,531	34,263	900,268	No limit...
128	Butte, Mont.	240,000	427,716	667,716	53,064	614,652	6% (a)
129	Auburn, N. Y.	738,690	.....	738,690	.....	738,690	(e)

aOf assessed valuation.

bSchool.

cOf assessed valuation plus sinking fund.

dOf assessed valuation of real estate.

eNot reported.

fNot including State tax of \$4 on mortgages, securities, stocks, bonds, etc.

gSchool, \$4.10; street and sewer, \$1; library, \$0.30.

hNot including \$2,254,787.53 assumed by State on reorganization of city.

iState and county school, \$2; special, \$1.

jControlled by legislation.

kIncluded in county.

lIncluding State.

mBond interest.

nIncluding \$41,069 temporary loan bonds.

oSchool, \$6.75; township, \$0.40.

pNot including \$106,684 local improvement bonds.

TABLE XIII.—DEBT, BASIS OF ASSESSMENT, ASSESSED VALUATION OF PROPERTY, AND TAXATION—Concluded.

Basis of assessment of property—per cent of full value.		Assessed valuation of property.			Tax rate per \$1,000.					Marginal number.
Real.	Personal.	Real.	Personal.	Total.	State.	County.	City.	Other.	Total.	
75	100	\$13,536,602	\$5,243,474	\$18,780,076	\$5.36	\$4.70	\$12.50	b \$2.20	\$24.76	94
100	100	28,528,680	5,041,340	33,570,000	1.80	.....	14.70	.....	16.50	96
75	75	(e)	(e)	15,960,285	.....	5.00	7.50	b 6.00	f 18.50	96
66½	100	18,034,071	5,721,544	23,755,615	.....	.....	5.00	g 5.40	10.40	97
50	50	11,306,461	4,496,443	15,802,904	5.50	5.00	13.50	f 3.00	27.00	98
60	60	12,000,000	3,500,000	15,500,000	(k)	112.00	5.00	m 5.00	22.00	99
40	40	9,482,205	3,134,025	12,616,230	5.50	5.80	5.70	b 5.00	22.00	100
60	50	11,441,370	5,616,369	17,057,739	2.84	3.64	9.97	o 6.15	22.60	101
66½	66½	22,388,743	4,388,565	26,777,338	2.00	6.60	15.70	b 2.00	26.30	102
100	100	19,490,553	3,069,287	22,549,840	5.40	6.60	12.00	b 3.00	27.00	103
100	100	20,394,766	5,209,468	25,604,234	(e)	(e)	(e)	(e)	17.80	104
100	100	14,824,620	4,068,151	18,877,771	5.84	7.16	12.00	b 5.00	30.00	105
66½	66½	14,973,910	6,170,225	21,144,135	2.97	1.40	11.80	b 5.90	22.07	106
80	80	16,224,143	7,717,332	23,941,475	3.00	9.00	10.00	b 14.00	36.00	107
20	20	8,070,162	1,550,191	4,620,353	4.20	7.50	36.00	z 29.50	77.20	108
66½	66½	10,468,400	3,962,500	14,430,900	2.97	3.03	12.50	u 7.80	26.30	109
100	100	18,772,400	9,459,703	28,232,103	.....	.49	17.78	.....	18.50	110
66½	66½	13,500,000	210,000	13,710,000	.....	3.50	5.25	b 6.70	f 15.45	111
100	100	15,711,485	1,530,726	17,242,211	(k)	18.44	16.95	.....	25.39	112
100	100	20,161,877	65,925	20,227,802	.....	2.50	3.79	b 5.50	f 11.79	113
(z)	(z)	8,317,180	5,635,070	13,952,250	2.90	2.50	14.50	b 23.00	42.90	114
75	75	(e)	(e)	15,760,000	.....	2.75	7.00	y 7.25	f 17.00	115
20	20	4,529,208	1,747,462	6,276,670	13.00	9.00	16.00	z 21.13	59.13	116
100	100	21,196,650	2,206,644	23,403,294	1.18	.....	11.18	b 5.04	17.40	117
100	100	23,385,500	3,376,900	26,762,400	.....	.61	9.66	aa 5.93	16.40	118
50	50	7,433,402	1,454,240	8,887,642	5.25	8.75	18.50	b 16.00	48.50	119
33½	33½	4,748,220	1,075,028	5,823,248	3.00	4.00	41.50	b 21.50	70.00	120
60	60	9,391,871	1,420,805	10,812,676	3.50	9.50	12.50	.....	25.50	121
60	60	12,100,000	2,150,000	14,250,000	3.50	8.50	16.50	.....	28.50	122
65	65	9,496,215	1,107,938	10,604,151	2.30	13.20	13.90	b 11.10	40.50	123
20	20	4,115,060	2,202,891	6,317,951	4.20	5.40	21.10	bb 29.64	60.24	124
100	100	15,005,335	5,512,985	20,518,320	.....	1.75	15.67	.....	18.00	125
20	20	2,270,500	850,000	3,120,500	4.20	4.20	36.00	cc 46.60	91.00	126
60	60	8,346,940	3,272,880	11,619,820	2.84	5.66	12.00	dd 9.50	29.90	127
55	55	(c)	(c)	15,676,634	2.50	5.76	12.00	b 7.50	27.75	128
100	100	12,299,610	1,466,377	13,765,987	2.49	5.51	7.94	b 5.46	21.40	129

g Of assessed valuation; 5 per cent additional for light and water and 2 per cent additional for schools.

r Of average assessed valuation for 3 years.

s School, \$19; bond interest, \$10.50.

t Not including \$369,000 street and sewer improvement bonds held against private property.

u School, \$6.30; township, \$1.50.

v Including \$110,334 of trust funds.

w Of assessed valuation; may be 7 per cent by vote of people.

x For city taxes, 50; for State, county, and school, 25.

y School, \$6; sinking fund, \$1.25.

z School, \$19.50; township, \$1.63.

aa School, \$5.27; metropolitan sewer, \$0.66.

bb School, \$20; bridge and road, \$8; library, \$1.24; township, \$0.30.

cc School, \$34.60; township, \$6; road and bridge, \$6.

dd School, \$8.60; charities, \$0.60; township, \$0.30.

ee Including debt of school district extending beyond city limits.

ff Including sinking fund of school district extending beyond city limits.

TABLE XIV.—INCOME FROM ALL SOURCES.

Marginal number.	Cities.	Cash on hand at beginning of fiscal year.	Property tax.	Liquor licenses.	Other licenses and fees.	Fines.	Franchises.
1	New York, N. Y.	\$22,058,412	\$73,253,702	\$5,713,869	\$932,637	\$208,362	\$198,896
2	Chicago, Ill. (b)	2,746,666	13,046,755	3,127,403	716,798	108,969	416,474
3	Philadelphia, Pa.	4,829,528	17,215,953	1,709,134	814,763	511	53,901
4	St. Louis, Mo.	3,998,406	6,323,129	974,071	654,655	52,554	113,101
5	Boston, Mass.	c4,477,760	13,896,775	1,482,077	d73,666	e147,976	53,901
6	Baltimore, Md.	693,126	6,355,858	388,399	99,512	7,855	283,049
7	Cleveland, Ohio.	3,790,943	3,518,145	422,485	102,567	41,885	65,128
8	Buffalo, N. Y.	399,992	6,113,400	549,263	47,721	8,778	48,220
9	San Francisco, Cal.	1,295,450	6,134,609	246,380	402,011	29,804	9,183
10	Cincinnati, Ohio.	a1,614,088	3,991,087	415,138	379,138	3,887	.....
11	Pittsburg, Pa.	273	4,476,752	463,371	108,545	37,626	.....
12	New Orleans, La.	195,745	3,134,972	140,000	182,580	16,869	56,600
13	Detroit, Mich.	1,753,205	3,339,920	243,915	37,692	9,542	23,365
14	Milwaukee, Wis.	257,296	3,536,186	355,204	10,937	20,445	.....
15	Washington, D. C.	(f)	3,193,863	246,300	123,426	46,678	.....
16	Newark, N. J.	226,260	2,986,450	328,217	19,926	11,545	74,428
17	Jersey City, N. J.	977,038	2,789,626	251,496	13,377	4,254	1,410
18	Louisville, Ky.	181,120	2,790,744	132,910	132,169	2,933	137,416
19	Minneapolis, Minn.	708,892	2,114,218	323,000	19,506	64,827	3,960
20	Providence, R. I.	220,606	2,988,108	204,920	57,684	8,802	94,366
21	Indianapolis, Ind.	69,545	1,293,871	173,746	70,116	5,321	51,698
22	Kansas City, Mo.	443,385	1,320,952	106,181	94,256	20,299	13,347
23	St. Paul, Minn.	577,668	1,416,405	294,000	30,365	28,333	.....
24	Rochester, N. Y.	822,246	2,004,137	186,871	13,440	1,316	8,504
25	Denver, Colo.	296,628	1,280,220	192,875	58,200	5,180	2,900
26	Toledo, Ohio.	421,417	1,431,598	115,583	23,210	3,500	.....
27	Allegheny, Pa.	264,515	1,472,242	161,140	30,507	9,233	20,982
28	Columbus, Ohio.	21,804	1,239,558	80,078	780	21,988	5,879
29	Worcester, Mass.	881,497	1,892,898	164,351	2,316	11,768	14,240
30	Syracuse, N. Y.	149,693	1,191,053	133,771	37,578	3,388	.....
31	New Haven, Conn.	78,712	1,167,154	150,963	26,975	938	.....
32	Paterson, N. J.	36,078	1,266,940	137,275	20,405	2,281	1,270
33	Fall River, Mass.	105,641	1,359,931	122,278	4,114	9,222	15,104
34	St. Joseph, Mo.	124,586	427,010	62,228	23,627	11,258	.....
35	Omaha, Nebr.	376,642	939,818	194,000	22,374	261	13,641
36	Los Angeles, Cal.	620,618	849,334	120,000	56,848	7,260	.....
37	Memphis, Tenn.	181,131	857,218	12,125	54,941	6,652	10,000
38	Scranton, Pa.	215,702	596,579	67,267	2,645	7,721	.....
39	Lowell, Mass.	232,349	1,430,703	k300	4,347	7,757	.....
40	Albany, N. Y.	588,583	1,008,458	152,703	7,335	822	.....
41	Cambridge, Mass.	206,150	1,575,761	52	5,094	5,112	.....
42	Portland, Oreg.	355,104	582,436	99,547	36,827	2,358	.....
43	Atlanta, Ga.	557,599	738,301	84,068	114,073	21,685	.....
44	Grand Rapids, Mich.	672,080	m867,063	39,553	11,135	1,457	.....
45	Dayton, Ohio.	821,269	1,046,695	65,326	4,979	1,656	.....
46	Richmond, Va.	10,755	1,027,832	16,350	57,048	5,904	.....
47	Nashville, Tenn.	82,410	685,759	(n)	o96,234	4,539	.....
48	Seattle, Wash.	354,535	486,728	97,200	19,080	27,446	2,648
49	Hartford, Conn.	331,796	1,268,342	86,913	4,339	7,229	8,897
50	Reading, Pa.	102,358	473,306	69,600	3,738	1,066	.....
51	Wilmington, Del.	87,040	501,800	(p)	14,836	4,897	.....
52	Camden, N. J.	493,126	732,278	112,045	3,966	2,658	2,303
53	Trenton, N. J.	170,813	655,600	102,900	4,451	3,155	.....
54	Bridgeport, Conn.	120,910	733,455	124,526	5,588	12,544	.....
55	Lynn, Mass.	61,453	q957,870	104,087	8,803	5,709	.....
56	Oakland, Cal.	15,063	501,805	81,700	16,196	5,638	80
57	Lawrence, Mass.	72,188	600,922	134,030	1,776	10,705	.....
58	New Bedford, Mass.	75,972	948,786	57,587	5,504	6,622	11,850
59	Des Moines, Iowa	202,854	747,716	61,300	21,211	6,575	3,155
60	Springfield, Mass.	267,365	1,009,900	77,636	3,060	7,798	8,312
61	Somerville, Mass.	70,376	844,468	60	8,835	4,546	.....
62	Troy, N. Y. (r)	208,082	511,189	92,697	712	233	.....
63	Hoboken, N. J.	98,702	647,319	88,500	6,325	3,150	.....
64	Evansville, Ind.	218,870	484,611	21,585	12,524	1,154	3,044
65	Manchester, N. H.	128,420	q608,840	.....	5,446	55,851	.....
66	Utica, N. Y.	62,042	402,746	64,208	235	7,120	.....
67	Peoria, Ill.	83,513	523,812	105,500	7,676	1,994	5,500
68	Charleston, S. C.	9,208	456,706	.....	84,919	4,695	.....
69	Savannah, Ga.	9,739	475,691	47,948	100,791	7,951	.....
70	Salt Lake City, Utah	53,470	564,402	90,850	47,712	14,568	400
71	San Antonio, Tex.	43,467	378,512	13,350	33,376	3,491	.....

a Including cash in sinking fund at beginning of fiscal year.

b Not including data relating to sanitary district of Chicago.

c Including cash in county treasury.

d Including \$29,370, income of county.

e Income of county.

f Including \$117,940, income of county.

g Including income of county.

h Including \$84,878 premium.

i Cash on hand at end of fiscal year required by law to be returned to United States Treasury, when

j Available only by reappropriation by Congress.

TABLE XIV.—INCOME FROM ALL SOURCES.

Docks, wharves, ferries, bridges, markets, cemetaries, etc.	Water- works.	Gas works.	Electric- light plants.	Special assess- ments.	Loans.	Other.	Total income.	Marg- inal num- ber.
\$8,347,980	\$6,370,158			\$4,530,449	\$79,895,387	\$3,505,707	a \$205,010,549	1
586,470	3,336,991			2,874,159	4,561,414	1,526,350	33,048,449	2
65,177	3,073,326	\$349,948			6,598,881	2,120,847	36,778,050	3
93,918	1,483,353			186,398		1,110,876	14,990,461	4
680,784	2,291,888			343,962	17,355,926	f 4,942,528	g 45,747,243	5
93,789	901,307			64,982	h 1,655,878	401,662	10,745,417	6
1,492,978	732,871			743,217	2,124,603	171,677	13,206,499	7
124,825	643,747				861,794	946,983	9,744,723	8
59,714						1,042,226	9,219,377	9
1,915,260	803,828			355,013	1,202,523	80,425	a 10,760,337	10
118,963	795,146			1,032,963		959,688	7,988,427	11
234,369						575,470	4,535,705	12
338,870	301,911		\$4,361	400,986	53,074	350,619	6,857,460	13
	442,938			268,355	160,000	74,353	5,125,714	14
21,163	327,173			42,402		j 3,266,456	7,267,461	15
45,271	670,336			429,443	4,451,500	761,044	10,004,420	16
4,811	843,466			221,628	2,399,847	650,645	8,107,698	17
25,783	347,114			102,829	433,000	84,041	4,370,059	18
123,728	220,705			396,910	230,000	286,061	4,491,797	19
27,891	553,989			103,725	2,042,341	1,227,715	7,630,447	20
23,440	1,326			528,760	414,406	165,451	2,797,680	21
30,565	397,238					127,164	2,553,387	22
2,751	305,047			238,216	979,500	668,049	4,540,334	23
74,245	298,819			314,615	3,047,565	522,608	7,294,366	24
				657,522	98,215	39,605	2,631,245	25
5,604	149,546	28,435		197,338		64,874	2,441,041	26
78,382	225,843			197,169	238,410	136,069	2,834,422	27
13,457	173,071			386,266	543,763	125,654	2,612,801	28
169,411	283,531			92,433	1,810,152	422,975	5,745,572	29
8,783	313,262			386,719	398,446	23,571	2,637,481	30
				56,528	1,246,029	184,962	2,921,044	31
				103,512	1,083,199	134,317	2,785,277	32
					1,292,258	153,527	3,234,908	33
						58,851	2,710,493	34
						125,800	2,479,633	35
						429,530	2,090,652	36
						30,000	1,193,335	37
						10,000	1,052,594	38
						1,306,100	3,485,753	39
						473,230	3,095,781	40
						33,973	3,445,780	41
						61,087	1,607,754	42
						45,961	1,805,055	43
						202,381	m 2,292,198	44
						25,210	2,282,524	45
						313	1,683,829	46
						170,000	2,125,294	47
						180,370	1,511,090	48
						64,468	2,387,636	49
						105,903	960,451	50
						5,095	922,371	51
						27,855	1,749,067	52
						137,858	1,628,877	53
						117,486	1,137,914	54
						21,273	2,515,493	55
						35,081	854,612	56
							1,614,528	57
							2,306,615	58
							1,055,330	59
							2,341,678	60
							2,160,350	61
							1,319,851	62
							1,912,276	63
							935,865	64
							1,340,905	65
							893,684	66
							1,206,679	67
							603,049	68
							869,276	69
							885,194	70
							560,696	71

j Including \$3,200,688 appropriated from funds of United States Treasury, as explained on page 925.

k Income from one special license to close out stock of liquors belonging to an estate.

l Including \$250,550 received from sinking fund.

m Including \$155,673, State and county tax.

n Included in income from other licenses and fees.

o Including income from liquor licenses.

p Receipts paid to county.

q Including State and county tax.

r Data are for 10 months.

s Including amount received from sinking fund.

TABLE XIV.—INCOME FROM ALL SOURCES—Concluded.

Marginal number.	Cities.	Cash on hand at beginning of fiscal year.	Property tax.	Liquor licenses.	Other licenses and fees.	Fines.	Franchises.
72	Duluth, Minn.....	\$245,755	\$462,258	\$138,000	\$5,675	\$16,721	
73	Erle, Pa.....	56,527	388,765	53,280	8,865	1,892	
74	Elizabeth, N. J.....	98,951	506,200	53,089	2,709	1,366	
75	Wilkesbarre, Pa.....	8,827	321,584	61,700	2,867	2,217	
76	Kansas City, Kans.....	167,044	(b)	(b)	(b)	(b)	(b)
77	Harrisburg, Pa.....	65,585	828,679	25,460	10,294	1,530	
78	Portland, Me.....	29,698	950,881		1,691	5,730	
79	Yonkers, N. Y.....	204,211	728,323	48,491	4,826	1,343	
80	Norfolk, Va.....	131,543	385,095	33,164	109,029	1,554	\$5,616
81	Waterbury, Conn.....	26,656	220,614	(c)	2,205	4,354	
82	Holyoke, Mass.....	21,155	761,259	60,000	1,679	3,876	
83	Fort Wayne, Ind.....	185,791	313,037	16,100	18,645	990	
84	Youngstown, Ohio.....	162,568	295,126	34,935	d 7,919	(c)	
85	Houston, Tex.....	91,748	411,966	13,500	13,175	6,964	25
86	Covington, Ky.....	223,976	353,663	18,057	5,297	13,684	30,000
87	Akron, Ohio.....	213,821	313,254	22,326	d 2,547	(c)	
88	Dallas, Tex.....	236,527	351,634	22,625	1,765	6,014	1,450
89	Saginaw, Mich.....	150,389	385,578	31,698	7,199	3,925	522
90	Lancaster, Pa.....	28,888	206,723	31,004	2,619	1,873	
91	Lincoln, Nebr.....	81,878	308,517	41,000	3,134	1,954	
92	Brockton, Mass.....	40,024	561,000		1,668	4,212	
93	Binghamton, N. Y.....	158,219	313,840	33,085	3,688	2,456	
94	Augusta, Ga.....	a 55,896	194,231	15,150	50,492	6,163	8,338
95	Pawtucket, R. I.....	23,664	547,242	47,751	11,953	1,374	1,138
96	Altoona, Pa.....	99,923	203,782	788	4,538	2,928	
97	Wheeling, W. Va.....	11,365	261,723	37,328	7,151	8,109	1,488
98	Mobile, Ala.....	2,259	99,452	9,004	57,006	6,410	290
99	Birmingham, Ala.....	24,108	113,897	41,350	66,965	16,804	
100	Little Rock, Ark.....	10,402	119,067	20,850	18,319	28,425	1,669
101	Springfield, Ohio.....	64,138	310,648	11,643	1,428	1,711	
102	Galveston, Tex.....	129,968	452,364	12,740	1,350	3,543	
103	Tacoma, Wash.....	75,589	399,804	39,500	10,499	15,892	51
104	Haverhill, Mass.....	39,821	468,601	62,029	2,083	2,866	
105	Spokane, Wash.....	316,430	344,251	48,940	9,911	22,844	1,500
106	Terre Haute, Ind. (k).....	67,468	204,824	20,686	3,677	796	
107	Dubuque, Iowa.....	117,402	341,748	42,900	2,153	6,333	
108	Quincy, Ill.....	94,806	325,694	70,000	5,487	1,043	
109	South Bend, Ind.....	89,937	277,249	20,829	1,545	506	
110	Salem, Mass.....	3,026	530,099		1,398	2,283	
111	Johnstown, Pa.....	90,661	167,011	23,400	19,308	8,062	
112	Elmira, N. Y.....	(l)	(l)	(l)	(j)	(l)	(l)
113	Allentown, Pa.....	128,747	165,984	30,198	12,722	1,615	
114	Davenport, Iowa.....	65,508	341,469	45,152	6,229	6,646	
115	McKeesport, Pa.....	48,912	214,783	18,656	1,460	4,000	
116	Springfield, Ill.....	54,564	196,006	69,922	7,760	5,709	
117	Chelsea, Mass.....	14,108	403,078		3,500		
118	Malden, Mass.....	8,480	441,984		760	1,532	
119	Topeka, Kans.....	133,412	234,453		5,481	9,563	
120	Sioux City, Iowa.....	114,032	221,904	35,570	7,213	24,314	4,031
121	Knoxville, Tenn.....	5,336	196,697	11,000	38,787	2,996	
122	Chattanooga, Tenn.....	10,675	219,986	16,000	17,589	3,571	350
123	Superior, Wis.....	140,146	226,481	56,500	14,490	8,067	
124	Rockford, Ill.....	21,759	231,128	41,730	4,733	293	
125	Taunton, Mass.....	8,655	394,394	44,409	1,067	2,148	
126	Joliet, Ill.....	127,004	m 124,913	94,000	3,251	1,048	
127	Canton, Ohio.....	140,476	234,018	21,236	1,182	1,408	
128	Butte, Mont.....	o 111,920	o 388,552	47,345	48,702	14,773	1,000
129	Auburn, N. Y.....	83,868	203,630	24,628	462	1,126	

a Including \$17,607 received from sinking fund.

b Not reported.

c Receipts paid to town of Waterbury.

d Including income from fines.

e Included in income from other licenses and fees.

f Including income from special assessments.

g Included in income from property tax.

h Including cash in sinking fund at beginning of fiscal year.

TABLE XIV.—INCOME FROM ALL SOURCES—Concluded.

Docks, wharves, ferries, bridges, markets, cemeteries, etc.	Water- works.	Gas works.	Electric- light plants.	Special assess- ments.	Loans.	Other.	Total income.	Marg- inal num- ber.
	\$129,572	\$33,446		\$195,731	\$515,563	\$260,512	\$2,003,228	72
\$672	139,840			16,918	10,000	52,966	724,646	73
708				39,984	79,045	102,153	884,200	74
2,196				17,689	a 135,000	87,736	634,316	75
(b)	(b)	(b)	(b)	(b)	(b)	(b)	1,352,033	76
162,778	114,397			12,432		43,696	602,072	77
86,444	137,510			10,177	317,333	82,858	1,551,146	78
20,884	120,750			208,687	636,200		2,056,585	79
7	108,053			8,409	746,384	116,787	1,678,215	80
	85,896			81,345	128,719	208,191	730,144	81
983	57,649			4,204	733,000	107,300	1,778,369	82
	59,513			43,444		7,498	644,077	83
25,253				80,087	113,346	22,590	776,109	84
2,638	68,086				101,225	190,585	854,441	85
5,000				20,154	86,700	20,837	850,092	86
150	65,729			71,049	248,892	36,792	913,681	87
5,372	42,693			(g)		56,722	742,616	88
6,537	98,769				182,868	98,662	907,350	89
	48,861				15,000	40,301	425,714	90
6,775	80,306			88,121	24,879	14,902	612,746	91
	95,707			7,352	794,000	100,457	1,615,993	92
8,596	54,804			12,842	15,680	27,917	663,386	93
11,449	181,665			72,428	219,000	55,780	1,740,865	94
1,639	68,656			20,426	518,859	268,815	1,634,336	95
11,594	103,466	93,860		6,656		37,715	426,625	96
13,314						20,695	556,774	97
8,357					775,000	2,681	965,415	98
	60,772			9,372	24,827	28,934	333,614	99
24,598	63,949			16,863		22,196	232,780	100
43,492	80,949			41,599	240,912	6,861	764,305	101
1,206	104,031		\$57,114			56,261	763,687	102
(i)	96,433			66,216	72,965	194,831	1,037,697	103
5,064	j 105,571			10,855	301,000	186,364	1,170,052	104
				176,546	322,560	17,000	1,365,553	105
414				143,826	30,000	149,073	624,916	106
835	47,594			96,008	35,675	17,925	660,144	107
815	77,609			70,503	4,332	4,798	576,927	108
2,331				112,206	96,108	892	647,695	109
(l)	(l)	(l)	(l)		432,200	92,033	1,138,963	110
4,421	53,727			1,968		43,696	351,422	111
1,130				(l)	(l)	(l)	(l)	112
320	51,126			3,542	1,800	49,401	450,107	113
16,420	61,438			39,540		27,971	533,645	114
32,017	104,133			30,597	100,375	41,170	511,399	115
3,500	114,710			9,003	73,884	61,818	556,024	116
1,195				5,773	373,000	105,968	1,009,560	117
7,973	43,596			38,582	479,500	136,579	1,254,124	118
				14,254	230,581	148,158	779,432	119
				98,408		3,110	553,368	120
					173,798	4,607	441,193	121
					23,000	2,983	294,104	122
				83,259		31,333	560,266	123
8,108	40,308			27,996	280,000	30,611	658,553	124
	87,046		38,169	2,174	366,450	83,783	1,031,423	125
	21,543			n 195,425		23,729	590,893	126
1,467	43,208			35,342	131,347	20,882	630,556	127
3,660				51,591		o 21,618	o 683,961	128
	78,897			17,649			408,260	129

{ Included in income from waterworks.

j Including income from docks, wharves, ferries, etc.

k Data are for 8½ months.

l Not reported, on account of alleged defalcation.

m Income from school and library tax included in income from special assessments.

n Including income from school and library tax.

o Including income of school district extending beyond city limits.

TABLE XV.—EXPENDITURES FOR CONSTRUCTION AND OTHER CAPITAL OUTLAY.

Marginal number.	Cities.	Police department.	Police courts, jails, work-houses, reformatories, etc.	Fire department.	Health department.	Hospitals, asylums, almshouses, and other charities.	Schools.	Libraries, art galleries, museums, etc.
1	New York, N. Y.	\$1,599	\$185,142	\$141,286		\$365,910	\$3,967,744	\$857,165
2	Chicago, Ill. (b)	10,393	1,119	66,948			941,696	24,549
3	Philadelphia, Pa.	56,571		128,864		11,337	686,416	221,819
4	St. Louis, Mo.	5,999		46,324			490,304	38,647
5	Boston, Mass.		c 36,325	58,740		d 159,816	882,410	77,732
6	Baltimore, Md.	49,968	640,040	4,732	\$1,500		88,180	
7	Cleveland, Ohio	1,696	24,833	32,973		16,497	175,980	8,929
8	Buffalo, N. Y.			6,585			145,150	
9	San Francisco, Cal.	97,709		64,401		5,550	140,733	15,444
10	Cincinnati, Ohio	2,347		6,283		13,801	38,205	11,254
11	Pittsburg, Pa.	4,215		61,416		35,746	282,631	36,672
12	New Orleans, La.	1,000	13,000	111,737			86,837	
13	Detroit, Mich.	6,826		57,770	900		173,361	
14	Milwaukee, Wis.						90,130	30,379
15	Washington, D. C.	9,882	23,877	9,373		46,353	163,674	
16	Newark, N. J.			5,400		24,145	75,727	121,500
17	Jersey City, N. J.			10,096			70,199	60,856
18	Louisville, Ky.	14,000		30,500			83,177	
19	Minneapolis, Minn.	1,695				31,138	141,356	4,565
20	Providence, R. I.			19,706			86,986	
21	Indianapolis, Ind.			2,000	1,500		91,855	
22	Kansas City, Mo.			8,180			2,216	7,320
23	St. Paul, Minn.			1,496				21,022
24	Rochester, N. Y.						101,380	
25	Denver, Colo.						44,175	2,612
26	Toledo, Ohio	74		12,932	15,021		57,287	6,864
27	Allegheny, Pa.			11,900			172,587	
28	Columbus, Ohio		100	2,291			70,068	1,142
29	Worcester, Mass.	10,604		18,239		58,082	151,706	14,585
30	Syracuse, N. Y.			8,113			44,223	11,100
31	New Haven, Conn.						9,064	1,232
32	Paterson, N. J.			6,091			61,655	4,584
33	Fall River, Mass.	1,000		19,001			39,820	16,922
34	St. Joseph, Mo.	265						
35	Omaha, Nebr.						106,066	
36	Los Angeles, Cal.			124,845			11,406	7,083
37	Memphis, Tenn.			17,489	* 7,468	4,491	51,967	
38	Scranton, Pa.						56,008	2,469
39	Lowell, Mass.					15,502	65,195	
40	Albany, N. Y.			3,350			12,408	
41	Cambridge, Mass.						230,218	4,848
42	Portland, Oreg.				845		40,547	
43	Atlanta, Ga.			1,800			4,500	
44	Grand Rapids, Mich.						15,214	4,426
45	Dayton, Ohio			5,005			114,290	3,136
46	Richmond, Va.	2,588		408		1,000		
47	Nashville, Tenn.			1,080			18,553	
48	Seattle, Wash.			6,471			55,112	3,555
49	Hartford, Conn.	12,237		25,482		7,500	22,500	
50	Reading, Pa.						48,108	
51	Wilmington, Del.						19,135	
52	Camden, N. J.			24,804			61,258	
53	Trenton, N. J.						25,000	
54	Bridgeport, Conn.	m 27,479			1,406	(n)	48,086	1,406
55	Lynn, Mass.			7,894		4	19,087	67,500
56	Oakland, Cal.						4,698	1,271
57	Lawrence, Mass.	o 77	(p)	3,685	8,300	1,159	10,296	
58	New Bedford, Mass.					3,274	2,162	3,568
59	Des Moines, Iowa						12,411	36,629
60	Springfield, Mass.			11,889		7,326	71,428	
61	Somerville, Mass.			11,617		15,409	75,741	10,442
62	Troy, N. Y. (q)						63,833	
63	Hoboken, N. J.			3,487			10,064	1,473
64	Evansville, Ind.	1,379		2,613			49,428	
65	Manchester, N. H.						894	
66	Utica, N. Y.						87,194	
67	Peoria, Ill.	81,411					70,858	4,857

a Including \$179,765 expended for hall of records and \$14,371 for National Guard armories.

b Not including data relating to sanitary district of Chicago.

c Including \$4,967 expended by county.

d Including \$12,452 expended by county.

e Including \$119,958 expended by county.

f Including \$137,367 expended by county.

g Not including \$463,979 expended by property owners under supervision of city.

h Including unpaid warrants which can not be traced to the various items of expenditure.

i \$238,874 expended for streets and sewers by property owners.

TABLE XV.—EXPENDITURES FOR CONSTRUCTION AND OTHER CAPITAL OUTLAY.

Parks and gardens.	Streets.	Sewers.	Water-works.	Gas works.	Electric-light plants.	Docks, wharves, ferries, bridges, markets, cemeteries, etc.	Liquidation of debt.	Total.	Marginal number.
\$1,266,077	\$10,431,544	\$1,146,975	\$4,114,117	.....	.....	\$4,807,318	\$76,748,242	\$104,083,118	1
239,920	1,272,076	977,195	2,076,729	.....	\$260,172	21,556	4,456,096	10,347,448	2
397,462	3,796,714	478,710	353,187	.....	.....	447,391	1,919,369	8,497,840	3
15,673	103,197	46,831	646,839	.....	.....	.....	476,000	1,869,814	4
685,725	2,898,711	1,285,085	458,311	.....	.....	844,148	13,483,063	20,867,066	5
3,169	112,061	33,507	382,091	.....	.....	.....	913,847	2,628,318	6
480,752	647,937	697,420	560,495	.....	.....	296,763	1,173,683	4,117,958	7
60,000	852,050	1,244,976	148,268	.....	.....	.....	1,200,784	3,657,763	8
106,914	94,419	20,500	.....	.....	.....	.....	53,995	4,599,665	9
.....	176,316	65,296	379,939	.....	.....	46,174	1,428,594	2,168,299	10
196,213	.....	1,368,484	121,882	.....	.....	.....	972,712	3,029,971	11
39,500	120,057	.....	.....	.....	.....	64,811	274,808	711,750	12
46,071	394,086	163,962	137,158	.....	7,140	33,650	315,227	1,356,151	13
.....	303,972	89,604	30,729	.....	.....	.....	585,960	1,130,774	14
.....	.....	214,907	225,300	.....	.....	8,211	152,308	853,885	15
.....	291,867	103,714	.....	.....	.....	.....	3,804,782	4,427,135	16
3,206	233,878	27,482	146,499	.....	.....	.....	2,142,145	2,694,364	17
20,102	221,444	109,724	116,585	.....	.....	2,000	877,965	1,475,497	18
243,520	.....	90,504	76,632	.....	.....	.....	420,102	1,009,512	19
6,194	134,464	294,727	26,988	.....	.....	.....	2,819,608	3,387,673	20
16,494	420,712	108,838	.....	.....	.....	23,062	14,600	675,561	21
83,701	8,446	3,100	161,800	.....	.....	.....	133,211	403,294	22
2,158	304,582	91,658	45,165	.....	.....	85,946	1,216,000	1,774,711	23
2,548	651,116	96,708	56,659	.....	.....	13,407	2,708,007	3,631,321	24
56,172	17,733	15,712	.....	.....	.....	11,999	484,620	633,023	25
79,919	37,124	96,269	43,213	.....	.....	.....	102,917	551,620	26
34,189	104,721	72,352	91,045	.....	14,137	.....	274,789	775,740	27
.....	44,438	11,997	91,557	.....	38,219	146,291	524,381	930,484	28
3,000	186,853	108,764	880,396	.....	.....	.....	1,301,923	2,734,152	29
.....	200,000	76,314	78,593	.....	.....	20,430	130,500	569,273	30
.....	14,138	48,164	.....	.....	.....	141,789	1,376,029	1,590,416	31
12,000	221,719	28,330	.....	.....	.....	.....	925,000	1,259,379	32
.....	126,911	135,860	12,352	.....	.....	.....	1,223,606	1,575,472	33
4,100	.....	.....	.....	.....	.....	.....	125,094	129,459	34
49,645	76,623	33,421	.....	.....	.....	37,942	305,000	507,697	35
.....	(5)	140,000	.....	.....	.....	10,000	82,425	425,759	36
.....	35,000	.....	.....	.....	.....	.....	31,000	297,405	37
.....	18,502	11,379	.....	.....	.....	.....	31,995	120,353	38
.....	68,146	101,692	47,002	.....	.....	11,855	1,377,530	1,686,922	39
30,000	203,618	18,384	232,114	.....	.....	8,500	656,110	1,184,484	40
105,439	87,192	66,817	46,651	.....	.....	44,682	836,539	1,422,406	41
.....	71,822	12,782	48,457	.....	.....	.....	308,606	483,059	42
.....	1,556	25,427	16,029	.....	.....	16,841	86,502	182,654	43
.....	233,905	21,005	49,409	.....	125,023	.....	104,500	553,482	44
.....	79,351	7,382	41,238	.....	.....	53,988	302,400	606,850	45
.....	14,688	41,363	10,631	\$7,998	.....	1,000	254,416	334,087	46
.....	15,319	27,662	34,497	.....	.....	90,285	76,100	263,376	47
.....	256,939	(1)	37,675	.....	.....	9,801	5,062	374,615	48
90,820	303,865	26,070	77,184	.....	.....	24,691	422,336	1,012,686	49
8,129	31,299	14,748	73,713	.....	.....	.....	53,563	229,560	50
33,625	20,099	16,392	48,354	.....	.....	8,410	51,186	197,201	51
.....	297,401	50,772	101,735	.....	.....	.....	64,278	600,243	52
.....	4,426	26,923	25,753	.....	.....	.....	211,281	293,383	53
.....	17,364	47,276	.....	.....	.....	.....	24,600	167,617	54
650	29,633	68,823	28,761	.....	.....	6,580	923,216	1,152,098	55
16,000	.....	.....	.....	.....	.....	.....	24,500	46,469	56
.....	28,266	5,000	9,905	.....	.....	5,501	314,039	386,128	57
.....	89,878	10,890	75,156	.....	.....	.....	952,170	1,137,118	58
.....	3,175	17,078	.....	.....	.....	.....	69,305	137,598	59
.....	65,405	50,275	32,096	.....	5,985	.....	672,999	917,405	60
20,095	47,103	33,397	19,979	.....	.....	.....	869,500	1,103,283	61
.....	63,611	7,212	6,925	.....	.....	25,000	329,100	495,181	62
1,937	205,642	24,874	4,825	.....	.....	2,267	807,642	1,062,811	63
.....	16,422	240	112,592	.....	.....	.....	.....	182,569	64
.....	25,196	20,417	20,396	.....	.....	.....	390,100	457,003	65
.....	162,930	22,163	.....	.....	.....	.....	58,079	330,326	66
47,301	101,135	3,000	.....	.....	.....	.....	207,014	515,076	67

j Including \$250,560 paid with money transferred from sinking fund.

k Including expenditures for sewers.

l Included in expenditures for streets.

m Including expenditures for emergency hospital.

n Expenditures for emergency hospital included in expenditures for police department.

o Including expenditures for police courts, jails, workhouses, reformatories, etc.

p Included in expenditures for police department.

q Data are for 10 months.

r Including \$13,572 paid with money transferred from sinking fund.

TABLE XV.—EXPENDITURES FOR CONSTRUCTION AND OTHER CAPITAL OUTLAY—Concl'd

Marginal number.	Cities.	Police department.	Police courts, jails, work-houses, reformatories, etc.	Fire department.	Health department.	Hospitals, asylums, almshouses, and other charities.	Schools.	Libraries, art galleries, museums, etc.
68	Charleston, S. C.						(a)	\$41,510
69	Savannah, Ga.			\$4,156			(a)	
70	Salt Lake City, Utah.				b \$2,000	(c)	\$26,452	
71	San Antonio, Tex.							
72	Duluth, Minn.							16,000
73	Erie, Pa.			11,171			7,767	49,222
74	Elizabeth, N. J.						23,900	
75	Wilkesbarre, Pa.						19,524	
76	Kansas City, Kans.	(e)	(e)	(e)	(e)	(e)	(e)	(e)
77	Harrisburg, Pa.	\$750		6,600			2,987	
78	Portland, Me.			1,950			17,005	
79	Yonkers, N. Y.						55,888	
80	Norfolk, Va.			5,694			47,817	
81	Waterbury, Conn.						26,046	
82	Holyoke, Mass.						4,094	
83	Fort Wayne, Ind.						29,127	514
84	Youngstown, Ohio.	1,650		300			29,512	
85	Houston, Tex.			6,452			25,908	
86	Covington, Ky.						1,144	7,956
87	Akron, Ohio.	2,378		2,739				2,016
88	Dallas, Tex.			3,100				
89	Saginaw, Mich.			2,000			2,500	
90	Lancaster, Pa.						1,760	4,000
91	Lincoln, Nebr.				200		26,888	2,643
92	Brockton, Mass.						7,031	
93	Binghamton, N. Y.					\$5,050	(a)	
94	Augusta, Ga.	(f)	k \$4,362				28,133	1,804
95	Pawtucket, R. I.			199			5,817	
96	Altoona, Pa.	1,004		2,685			15,620	2,330
97	Wheeling, W. Va.			6,888			(a)	
98	Mobile, Ala.							
99	Birmingham, Ala.						6,219	
100	Little Rock, Ark.						2,854	989
101	Springfield, Ohio.			2,819				
102	Galveston, Tex.			8,000				
103	Tacoma, Wash.						16,150	2,173
104	Haverhill, Mass.					5,024	31,318	
105	Spokane, Wash.						46,449	1,415
106	Terre Haute, Ind. (m).			1,500			2,504	1,000
107	Dubuque, Iowa.							
108	Quincy, Ill.						14,527	1,342
109	South Bend, Ind.						24,018	1,304
110	Salem, Mass.			6,761				
111	Johnstown, Pa.			5,482			69,127	
112	Elmira, N. Y.	(n)	(n)	(n)	(n)	(n)	(n)	(n)
113	Allentown, Pa.			6,500			7,600	
114	Davenport, Iowa.						58,615	
115	McKeesport, Pa.	8,700		500			39,162	
116	Springfield, Ill.	1,800	11,156				18,377	2,342
117	Chelsea, Mass.	35,146			1,350			
118	Malden, Mass.			2,104			16,263	
119	Topeka, Kans.							
120	Sioux City, Iowa.						5,000	
121	Knoxville, Tenn.			5,900		2,530		
122	Chattanooga, Tenn.						4,650	
123	Superior, Wis.			642			18,174	
124	Rockford, Ill.			7,121			31,107	2,628
125	Taunton, Mass.			13,775		3,850	14,852	2,109
126	Joliet, Ill.	104		2,575			52,000	1,500
127	Canton, Ohio.			11,331		99	13,357	
128	Butte, Mont.	3,194		5,230			31,943	2,544
129	Auburn, N. Y.						3,114	

a Supported by State and county.

b Including expenditures for contagious hospital.

c Expenditures for contagious hospital included in expenditures for health department.

d Including \$17,607 paid with money transferred from sinking fund.

e Not reported.

f Including expenditures for sewers.

g Included in expenditures for streets.

h Not including amounts expended in Brambleton and Atlantic City wards.

i Expended for city hall.

TABLE XV.—EXPENDITURES FOR CONSTRUCTION AND OTHER CAPITAL OUTLAY—Concl'd.

Parks and gardens.	Streets.	Sewers.	Water-works.	Gas works.	Electric-light plants.	Docks, wharves, ferries, bridges, markets, cemeteries, etc.	Liquidation of debt.	Total.	Marginal number.
\$3,400	\$17,146		\$6,668					\$68,724	68
1,175	93,833	\$19,513	3,062				\$47,065	168,804	69
2,114		7,048				\$5,510	19,406	62,530	70
	3,492		34,803	\$20,264			132,317	132,317	71
1,000	4,035	14,589	93,338				547,968	622,527	72
							59,473	240,566	73
							73,066	96,966	74
	24,984	14,698					d 80,500	139,651	75
(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	76
1,700	5,590	3,989	10,426			6,364	74,400	112,806	77
1,240	28,765	16,566					317,333	381,459	78
151,119	f 164,058	(g)	22,422				396,500	788,992	79
	h 25,083	h 10,049	199,872			9,004	279,157	576,676	80
	41,012	30,009	15,349				185,000	298,016	81
	9,729	3,983	29,044				923,218	970,068	82
	18,682	4,354	28,350				35,000	116,009	83
1,566	36,707	14,265	17,917				508	121,583	84
5,303	128,828	13,816		5,906			17,887	13,500	85
	10,963	10,458					\$34,230	193,313	86
1,291	47,423	39,015					613	161,796	87
500	44,200	14,248	2,600				61,000	125,648	88
	134,900	6,552	17,152				46,755	148,320	89
	17,683	15,583	16,423				570	40,000	90
			10,000				83,104	99,064	91
		21,643	25,967			2,470	726,969	806,580	92
1,436	29,674	7,048	59,628				6,000	116,169	93
	76,356	18,140	182,021				145,500	375,378	94
	111,733	18,785	23,352			1,731	629,373	810,140	95
	8,500	6,730	9,715				60,672	94,768	96
	21,813	4,280	43,750	8,961	\$2,064		37,876	143,602	97
		250,000	523,478					773,478	98
	(i)	(i)							99
5,876	11,122	9,938					23,088	29,312	100
			4,614				302,249	335,847	101
1,610	29,836		15,701		15,887		35,089	42,668	102
	29,276	5,282	34,261				114,856	196,113	103
3,722	61,337	47,072	102,236				383,730	488,870	104
	89,375	42,608					535,535	797,826	105
	5,676	823					14,000	150,982	106
	79,923	427					179,121	185,025	107
	f 114,547	(g)	30,968				132,108	228,327	108
	4,914		28,325				64,366	235,203	109
	15,110	1,840					476,150	516,150	110
(n)	(n)	(n)	(n)	(n)	(n)	(n)	23,458	115,017	111
							90,452	104,522	112
	41,077	16,938						116,680	113
	20,408	25,000	24,063				35,652	153,485	114
	8,508	682	25,000				81,262	149,122	115
19,144	13,897	23,200	5,780				890,964	489,481	117
13,466	15,677	21,351	30,962			2,000	433,704	536,027	118
	74,563	38,983			7,777	\$2,945	86,914	201,182	119
500		5,050	10,635				24,037	45,222	120
	2,477	2,772					134,850	148,529	121
	6,639	10,064						21,373	122
	6,733	3,636				9,018	11,224	49,427	123
235	34,188	5,087	27,860			3,757	240,000	351,933	124
	11,284	57,448	28,916		9,223		299,308	440,765	125
	73,989	7,976	23,933				3,600	165,627	126
	8,021	5,772	968				124,896	164,444	127
	46,017	9,224					28,046	p 126,198	128
	9,249	27,500	22,507				12,000	74,370	129

j Included in expenditures for police courts, jails, workhouses, reformatories, etc.

k Including expenditures for police department.

l \$37,758 expended for streets and sewers by property owners.

m Data are for 8½ months.

n Not reported, on account of alleged defalcation.

o Including expenditures for school district extending beyond city limits.

p Including expenditures for school district extending beyond city limits and unpaid warrants which can not be traced to the various items of expenditure.

TABLE XVI.—EXPENDITURES FOR MAINTENANCE AND OPERATION (1).

Marginal number.	Cities.	Police department.	Police courts, jails, work-houses, reformatories, etc.	Fire department.	Health department.	Hospitals, asylums, almshouses, and other charities.	Schools.	Libraries, art galleries, museums, etc.
1	New York, N. Y.	\$11,591,967	\$832,670	\$4,577,797	\$1,070,546	\$4,982,478	\$12,808,630	\$483,311
2	Chicago, Ill. (a)	3,678,886	226,319	1,648,494	190,844	20,198	7,030,776	248,325
3	Philadelphia, Pa.	2,717,816	747,008	990,283	240,928	650,261	3,412,887	263,641
4	St. Louis, Mo.	1,291,253	167,766	727,507	134,201	627,679	1,470,146	34,297
5	Boston, Mass.	1,653,623	61,238,334	1,191,105	145,021	795,844	2,770,594	228,280
6	Baltimore, Md.	860,154	219,213	491,531	91,641	303,661	1,343,767	498
7	Cleveland, Ohio.	392,221	71,720	442,187	35,532	165,447	1,071,509	50,918
8	Buffalo, N. Y.	845,970	24,090	603,779	43,771	194,846	1,098,207	125,239
9	San Francisco, Cal.	840,854	135,480	861,480	111,137	220,603	1,143,030	51,437
10	Cincinnati, Ohio.	557,639	136,008	438,490	40,446	126,666	903,504	29,515
11	Pittsburg, Pa.	c 466,053	(d)	447,785	81,507	141,059	925,727	67,328
12	New Orleans, La.	231,942	61,342	301,014	20,250	44,252	899,198	8,375
13	Detroit, Mich.	570,115	26,337	500,341	38,079	62,063	751,703	52,383
14	Milwaukee, Wis.	321,168	19,257	395,310	34,193	8,384	670,389	70,025
15	Washington, D. C.	627,395	190,028	232,264	44,054	315,813	1,066,186	6,024
16	Newark, N. J.	389,540	10,600	275,051	56,615	151,183	806,978	37,104
17	Jersey City, N. J.	c 374,102	f 10,600	212,942	7,766	43,303	455,724	34,181
18	Louisville, Ky.	281,093	124,505	237,548	9,638	73,839	530,574	.....
19	Minneapolis, Minn.	210,000	29,327	316,980	23,340	64,218	674,581	29,327
20	Providence, R. I.	354,532	4,468	349,983	20,270	36,004	662,380	10,000
21	Indianapolis, Ind.	148,910	5,600	177,007	10,000	42,997	806,837	49,008
22	Kansas City, Mo.	e 178,587	f 22,674	213,578	g 36,198	h 3,000	442,956	18,263
23	St. Paul, Minn.	172,011	38,211	200,083	9,011	21,125	428,643	16,502
24	Rochester, N. Y.	c 185,122	(d)	240,743	28,359	99,064	590,577	5,602
25	Denver, Colo.	126,730	3,581	137,997	41,630	19,152	652,138	16,041
26	Toledo, Ohio.	102,736	36,376	132,635	14,895	17,875	324,580	21,855
27	Allentown, Pa.	132,123	4,850	127,496	15,337	72,451	345,573	32,169
28	Columbus, Ohio.	138,063	17,682	197,012	55,340	24,679	399,255	5,649
29	Worcester, Mass.	158,656	.....	156,578	11,502	137,880	550,222	23,285
30	Syracuse, N. Y.	c 85,083	(d)	142,294	76,282	133,941	382,538	14,355
31	New Haven, Conn.	186,450	12,905	130,125	8,023	88,108	370,792	12,768
32	Paterson, N. J.	112,311	3,600	141,879	7,112	56,933	271,462	10,057
33	Fall River, Mass.	130,963	.....	115,710	23,619	118,286	314,289	13,326
34	St. Joseph, Mo.	i 56,286	j 4,685	50,735	g 6,478	h 2,000	123,249	7,887
35	Omaha, Nebr.	63,605	19,784	117,734	k 10,495	(l)	461,442	18,535
36	Los Angeles, Cal.	113,319	8,495	95,015	36,456	2,127	596,266	21,037
37	Memphis, Tenn.	c 85,074	(d)	72,404	m 60,664	26,318	n 98,932	5,240
38	Scranton, Pa.	56,620	.....	48,780	7,700	.....	283,759	c 531
39	Lowell, Mass.	c 123,380	(d)	119,027	40,820	114,309	272,654	16,000
40	Albany, N. Y.	156,630	6,000	148,898	9,539	69,681	283,239	1,600
41	Cambridge, Mass.	116,998	.....	84,900	22,048	80,580	412,473	16,377
42	Portland, Oreg.	62,550	5,831	86,240	4,121	1,095	249,785	130
43	Atlanta, Ga.	c 142,219	(d)	105,610	o 103,779	51,100	146,062	2,500
44	Grand Rapids, Mich.	87,270	2,152	118,826	4,639	15,649	257,969	5,322
45	Dayton, Ohio.	69,837	2,348	74,039	7,963	11,311	284,259	9,389
46	Richmond, Va.	101,239	7,385	89,694	p 67,469	38,434	122,912	.....
47	Nashville, Tenn.	q 85,909	r 4,522	88,310	7,322	21,106	167,334	2,500
48	Seattle, Wash.	56,550	6,887	78,377	8,798	2,905	211,831	11,458
49	Hartford, Conn.	122,803	8,296	102,417	10,476	92,500	315,565	10,500
50	Reading, Pa.	41,494	.....	32,070	2,965	.....	178,402	2,447
51	Wilmington, Del.	80,875	2,500	36,608	7,701	1,064	159,250	6,594
52	Camden, N. J.	79,198	4,911	53,737	3,500	10,821	172,815	500
53	Trenton, N. J.	72,338	2,000	69,930	4,500	17,201	161,103	.....
54	Bridgeport, Conn.	59,402	7,380	63,464	4,000	57,500	169,150	13,563
55	Lynn, Mass.	81,023	.....	87,862	4,828	109,742	252,387	8,554
56	Oakland, Cal.	64,192	6,757	98,120	10,446	1,800	273,199	11,834
57	Lawrence, Mass.	c 54,261	(d)	48,663	28,184	50,050	170,350	13,303

a Not including data relating to sanitary district of Chicago.

b Including \$1,061,164 expended by county.

c Including expenditures for police courts, jails, workhouses, reformatories, etc.

d Included in expenditures for police department.

e Including expenditures for jails.

f Expenditures for jails included in expenditures for police department.

g Including expenditures for hospitals.

h Expenditures for hospitals included in expenditures for health department.

i Including expenditures for police courts.

j Expenditures for police courts included in expenditures for police department.

k Including expenditures for hospitals, asylums, almshouses, and other charities.

l Included in expenditures for health department.

m Including expenditures for garbage removal.

n Not including expenditures for schools in territory annexed during year.

o Including expenditures for street cleaning and sprinkling and garbage removal.

p Including expenditures for cleaning sewers.

q Including expenditures for police courts and jails.

r Expenditures for police courts and jails included in expenditures for police department.

TABLE XVI.—EXPENDITURES FOR MAINTENANCE AND OPERATION (2).

Marginal number.	Cities.	Parks and gardens.	Sewers.	Street lighting.	Street cleaning and sprinkling.	Other street expenditures.	Garbage removal.	Interest on debt.
1	New York, N. Y.	\$1,406,830	\$670,606	\$1,290,463	\$4,068,531	\$3,140,612	\$1,706,943	\$13,687,725
2	Chicago, Ill. (a)	442,110	382,967	520,931	456,454	413,448	399,638	1,296,365
3	Philadelphia, Pa.	458,202	118,498	1,138,427	546,171	783,773	358,000	1,934,790
4	St. Louis, Mo.	138,122	90,336	417,394	364,459	512,777	180,038	803,533
5	Boston, Mass.	233,444	350,829	678,915	549,590	905,957	567,108	b 2,017,464
6	Baltimore, Md.	302,168	18,919	395,757	243,461	255,794	164,899	1,007,643
7	Cleveland, Ohio.	71,975	27,988	230,929	54,967	91,065	73,230	616,944
8	Buffalo, N. Y.	173,751	11,694	942,393	135,215	159,790	164,507	644,130
9	San Francisco, Cal.	208,361	83,153	284,672	153,335	157,668	.....	17,437
10	Cincinnati, Ohio.	43,996	30,825	342,771	189,966	100,761	24,583	1,804,433
11	Pittsburg, Pa. ....	.....	187,677	278,494	153,116	291,126	78,487	820,861
12	New Orleans, La.	9,655	.....	221,941	89,850	167,318	100,736	582,265
13	Detroit, Mich.	91,900	8,577	.....	147,381	470,312	61,064	282,190
14	Milwaukee, Wis.	82,992	43,281	196,970	142,810	114,070	143,939	322,788
15	Washington, D. C.	22,050	71,748	209,933	161,742	228,726	60,365	620,732
16	Newark, N. J.	4,601	64,090	207,820	c 113,264	(d)	64,792	337,111
17	Jersey City, N. J.	3,550	18,513	126,839	e 51,726	177,407	(d)	992,318
18	Louisville, Ky.	56,752	24,686	133,070	83,896	100,288	40,806	508,320
19	Minneapolis, Minn.	99,450	(f)	161,000	231,708	g 44,169	16,074	328,757
20	Providence, R. I.	47,885	63,741	302,538	78,161	179,835	25,730	799,668
21	Indianapolis, Ind.	121,761	10,075	112,865	86,648	28,000	42,329	82,360
22	Kansas City, Mo.	37,327	(h)	74,414	(i)	(h)	17,798	219,648
23	St. Paul, Minn.	61,996	16,326	118,766	89,719	90,051	14,061	645,120
24	Rochester, N. Y.	32,943	5,210	234,696	264,326	33,978	33,724	446,155
25	Denver, Colo.	56,645	12,435	72,633	65,869	45,368	7,493	171,350
26	Toledo, Ohio.	32,631	15,007	78,298	29,482	63,710	12,000	280,025
27	Allegheny, Pa.	16,310	12,500	81,183	33,000	86,436	30,500	253,663
28	Columbus, Ohio.	10,973	10,661	74,705	60,149	10,761	15,000	347,548
29	Worcester, Mass.	22,261	j 429,248	110,177	74,275	200,099	17,109	352,809
30	Syracuse, N. Y.	32,974	(i)	86,221	84,695	34,690	22,745	270,979
31	New Haven, Conn.	21,504	7,233	77,281	81,941	30,953	5,951	145,658
32	Paterson, N. J.	10,000	9,291	83,000	56,030	15,747	30,000	155,145
33	Fall River, Mass.	4,245	7,365	90,963	40,692	71,997	33,460	225,911
34	St. Joseph, Mo.	6,000	(j) .....	.....	9,207	g 27,498	.....	76,999
35	Omaha, Nebr.	31,046	6,541	79,748	21,582	56,578	1,293	277,697
36	Los Angeles, Cal.	53,819	5,583	50,101	75,429	85,288	12,767	78,158
37	Memphis, Tenn.	2,000	3,000	38,487	11,000	30,000	(k)	160,000
38	Scranton, Pa.	2,378	7,000	44,530	12,500	39,121	.....	51,437
39	Lowell, Mass.	11,786	16,612	83,991	10,621	166,059	7,193	123,742
40	Albany, N. Y.	33,556	1,884	86,963	45,034	39,168	500	237,222
41	Cambridge, Mass.	14,497	18,179	71,980	61,248	91,533	47,959	279,146
42	Portland, Oreg.	7,548	3,649	49,648	32,211	8,051	13,976	296,946
43	Atlanta, Ga.	9,500	53,600	74,200	(k)	77,584	(l)	154,543
44	Grand Rapids, Mich.	36,078	8,296	37,406	32,743	15,000	.....	93,639
45	Dayton, Ohio.	645	3,516	62,417	22,109	8,748	16,674	189,616
46	Richmond, Va.	m 36,021	n 2,486	30,931	34,811	o 51,677	p 10,460	385,082
47	Nashville, Tenn. ....	.....	.....	44,617	43,901	e 128,283	(f)	166,600
48	Seattle, Wash.	8,833	2,664	20,796	10,541	15,012	740	218,337
49	Hartford, Conn.	19,665	.....	54,583	56,707	32,403	24,850	149,407
50	Reading, Pa.	2,564	27,418	55,278	11,083	15,477	9,885	62,653
51	Wilmington, Del.	12,050	6,255	46,041	12,182	22,746	24,158	85,607
52	Camden, N. J.	904	10,522	76,118	e 18,000	26,215	(d)	106,373
53	Trenton, N. J.	13,630	3,890	25,878	c 39,497	(d)	9,457	148,042
54	Bridgeport, Conn.	18,367	6,953	53,000	22,147	68,143	19,000	71,975
55	Lynn, Mass.	6,139	24,215	54,205	20,506	83,165	36,809	190,835
56	Oakland, Cal.	10,377	13,571	65,706	55,239	31,339	.....	18,782
57	Lawrence, Mass.	7,269	21,960	31,393	17,560	57,826	8,300	109,878

a Not including data relating to sanitary district of Chicago.

b Including \$108,791 expended by county.

c Including other street expenditures.

d Included in expenditures for street cleaning and sprinkling.

e Including expenditures for garbage removal.

f Included in other street expenditures.

g Including expenditures for sewers.

h Paid for by property owners.

i Included in other expenditures for maintenance and operation.

j Including \$410,875 for purification of sewage.

k Included in expenditures for health department.

l Expended for burning garbage.

m Including expenditures for city hall and armory.

n Expenditures for cleaning sewers included in expenditures for health department.

o Including expenditures for removal of ashes.

p Expenditures for removal of ashes included in other street expenditures.

TABLE XVI.—EXPENDITURES FOR MAINTENANCE AND OPERATION (3).

Marginal number.	Cities.	Water-works.	Gas works.	Electric-light plants.	Docks, wharves, ferries, bridges, markets, cemeteries, etc.	Other.	Total.
1	New York, N. Y.	\$2,201,780			\$1,543,838	\$16,150,400	\$82,220,127
2	Chicago, Ill. (a)	1,896,500		\$238,048	217,080	936,884	19,744,267
3	Philadelphia, Pa.	1,811,870	\$5,921		338,191	3,223,201	19,234,368
4	St. Louis, Mo.	609,198			64,049	1,453,146	9,110,841
5	Boston, Mass.	868,844			532,106	4,920,486	b 19,762,543
6	Baltimore, Md.	902,183			356,177	163,604	7,121,020
7	Cleveland, Ohio	214,206			167,540	1,529,455	5,307,832
8	Buffalo, N. Y.	821,061			131,183	507,182	5,526,706
9	San Francisco, Cal.				4,078	3,246,090	c 7,518,815
10	Cincinnati, Ohio	510,127			130,294	623,684	6,188,701
11	Pittsburg, Pa.	221,771			39,145	1,764,278	4,954,414
12	New Orleans, La.				86,019	1,864,084	3,687,194
13	Detroit, Mich.	123,201		98,985	9,668	888,682	4,122,931
14	Milwaukee, Wis.	160,250			58,671	743,804	3,528,501
15	Washington, D. C.	181,874			82,992	2,112,222	6,171,708
16	Newark, N. J.	829,050			28,578	1,262,269	4,638,676
17	Jersey City, N. J.	866,668			2,606	1,863,342	4,741,587
18	Louisville, Ky.	76,106			7,737	329,362	2,588,219
19	Minneapolis, Minn.	92,775				869,756	2,691,462
20	Providence, R. I.	92,247			46,908	903,829	3,978,199
21	Indianapolis, Ind.	2,713			9,487	225,201	1,961,196
22	Kansas City, Mo.	149,230				d 511,479	1,925,152
23	St. Paul, Minn.	144,496			7,342	219,216	2,192,678
24	Rochester, N. Y.	138,300			28,865	429,066	2,798,810
25	Denver, Colo.		26,966		16,198	233,991	1,679,136
26	Toledo, Ohio.	42,567			50,220	306,247	1,598,104
27	Allegheny, Pa.	180,830			9,779	359,130	1,796,330
28	Columbus, Ohio	120,331		17,586		184,160	1,639,554
29	Worcester, Mass.	43,317			1,160	418,211	2,708,789
30	Syracuse, N. Y.	83,519				e 294,668	1,745,014
31	New Haven, Conn.				8,308	63,916	1,251,916
32	Paterson, N. J.					542,864	1,505,431
33	Fall River, Mass.	47,483			21,086	329,819	1,589,224
34	St. Joseph, Mo.			26,178		104,418	501,620
35	Omaha, Nebr.				735	256,358	1,422,178
36	Los Angeles, Cal.				4,149	256,292	c 1,434,296
37	Memphis, Tenn.				14,114	66,448	673,681
38	Scranton, Pa.				7,000	86,565	657,911
39	Lowell, Mass.	202,013			8,721	888,210	1,705,138
40	Albany, N. Y.	109,561			4,738	182,419	1,416,612
41	Cambridge, Mass.	76,006			38,248	419,137	1,851,328
42	Portland, Oreg.	89,964				110,225	961,970
43	Atlanta, Ga.	89,563			16,770	884,619	1,411,649
44	Grand Rapids, Mich.	54,421			24,418	f 363,683	f 1,157,579
45	Dayton, Ohio	41,021			15,256	186,661	994,809
46	Richmond, Va.	33,438	132,527		29,783	65,186	1,239,534
47	Nashville, Tenn.	49,716			3,066	96,437	909,603
48	Seattle, Wash.	62,031			2,875	98,277	816,811
49	Hartford, Conn.	55,608			14,138	130,010	1,199,928
50	Reading, Pa.	40,966				37,206	519,908
51	Wilmington, Del.	51,587			349	76,235	631,802
52	Camden, N. J.	89,273				308,973	961,560
53	Trenton, N. J.	43,022				640,090	1,250,578
54	Bridgeport, Conn.				3,998	117,265	765,307
55	Lynn, Mass.	75,173			21,891	g 245,865	g 1,802,398
56	Oakland, Cal.				4,016	130,248	800,626
57	Lawrence, Mass.	117,267			15,298	888,851	1,145,915

a Not including data relating to sanitary district of Chicago.

b Including \$1,189,955 expended by county.

c Including unpaid warrants which can not be traced to the various items of expenditure.

d Including expenditures for street cleaning and sprinkling.

e Including expenditures for sewers.

f Including \$155,673 State and county tax.

g Including State and county tax.

TABLE XVI.—EXPENDITURES FOR MAINTENANCE AND OPERATION (1)—Continued.

Marginal number.	Cities.	Police department.	Police courts, jails, work-houses, reformatories, etc.	Fire department.	Health department.	Hospitals, asylums, almshouses, and other charities.	Schools.	Libraries, art galleries, museums, etc.
58	New Bedford, Mass.	\$117,502		\$78,246	\$5,618	\$63,475	\$214,820	\$12,298
59	Des Moines, Iowa	37,640	\$5,311	65,000	6,360	1,200	264,195	11,219
60	Springfield, Mass.	60,743	2,835	92,163	6,801	60,530	315,919	29,161
61	Somerville, Mass.	59,054		59,743	8,079	42,955	261,955	11,728
62	Troy, N. Y. (a)	80,428	4,398	48,253	7,610	76,743	144,220	
63	Hoboken, N. J.	114,104	1,075	75,267	2,332	21,571	174,172	7,615
64	Evansville, Ind.	49,753	1,349	54,850	2,123	1,870	170,874	
65	Manchester, N. H.	41,488	b2,939	84,322	4,594	c17,645	122,092	5,354
66	Utica, N. Y.	24,889	(d)	79,167	13,334	16,881	152,642	8,998
67	Peoria, Ill.	55,876	12,105	62,701	6,253		172,940	11,118
68	Charleston, S. C.	75,236		48,100	13,500	62,621	e7,825	300
69	Savannah, Ga.	85,418	2,732	70,936	29,409	16,811	(f)	
70	Salt Lake City, Utah.	37,022	4,848	33,708	g12,202	1,979	220,534	6,460
71	San Antonio, Tex.	36,742	4,966	41,670	12,347	2,208	98,525	
72	Duluth, Minn.	83,705	14,368	74,645	6,419	600	194,895	12,665
73	Erie, Pa.	31,060	340	51,149	5,557		133,216	6,753
74	Elizabeth, N. J.	h50,075	(i)	22,876	4,560	16,810	106,230	
75	Wilkesbarre, Pa.	31,322		32,006	2,674		131,423	
76	Kansas City, Kans.	(j)	(j)	(j)	(j)	(j)	(j)	(j)
77	Harrisburg, Pa.	33,406		15,830	4,126	250	142,446	
78	Portland, Me.	52,689	3,681	70,636	3,125	61,460	116,481	6,600
79	Yonkers, N. Y.	74,904	2,776	24,960	10,175	4,000	210,492	2,000
80	Norfolk, Va.	k54,964	960	39,261	k32,822	15,328	45,285	1,500
81	Waterbury, Conn.	37,272	5,146	31,521	2,998		164,775	1,000
82	Holyoke, Mass.	h47,462	(i)	71,464	3,245	41,388	172,203	3,000
83	Fort Wayne, Ind.	h28,990	(i)	47,391	3,562		99,679	6,298
84	Youngstown, Ohio.	32,565	3,598	29,966	6,695	7,849	127,327	3,048
85	Houston, Tex.	55,993	2,500	64,124	24,899		138,309	862
86	Covington, Ky.	33,113	6,965	30,266	2,128	18,887	90,989	
87	Akron, Ohio.	31,592		53,768	2,242	7,699	133,752	4,936
88	Dallas, Tex.	41,739	1,980	38,136	9,371	12,900	88,880	
89	Saginaw, Mich.	29,718	3,200	29,702		13,859	169,134	1,000
90	Lancaster, Pa.	21,876		19,950	2,206		90,132	
91	Lincoln, Nebr.	17,779	1,500	27,372	1,275	450	99,443	5,220
92	Brockton, Mass.	41,238		55,121	4,988	34,382	138,824	7,761
93	Binghamton, N. Y.	27,439	1,850	27,851	4,026	7,500	130,132	3,299
94	Augusta, Ga.	55,707	3,303	47,592	11,286	24,425	(l)	
95	Pawtucket, R. I.	47,210	48	41,853		19,322	117,671	5,289
96	Altoona, Pa.	h20,431	(i)	21,363	1,786		87,901	
97	Wheeling, W. Va.	28,721	4,666	30,097	2,629		84,485	4,336
98	Mobile, Ala.	h38,708	(i)	22,445	1,939	7,099	(m)	
99	Birmingham, Ala.	37,264	5,263	44,901	3,487	2,677	n30,755	
100	Little Rock, Ark.	h31,451	(i)	40,292	3,805	7,473	65,049	
101	Springfield, Ohio.	25,647	4,649	24,770	2,522	9,791	97,566	4,614
102	Galveston, Tex.	56,890	6,715	60,080	4,626	22,327	53,555	1,635
103	Tacoma, Wash.	80,396	4,039	43,723	1,777		128,180	4,249
104	Haverhill, Mass.	h32,155	(i)	54,596	8,277	40,213	124,142	8,713
105	Spokane, Wash.	27,750	3,171	61,528	8,634	1,800	71,046	2,352
106	Terre Haute, Ind. (o)	31,029	1,800	28,931	2,594	2,235	141,832	5,090
107	Dubuque, Iowa	28,036		32,101	1,521		89,024	
108	Quincy, Ill.	20,801	6,999	27,113	2,069		70,035	3,659
109	South Bend, Ind.	18,689		29,555	425		68,543	2,739

a Data are for 10 months.

b Expenditures for workhouses included in expenditures for hospitals, asylums, almshouses, and other charities.

c Including expenditures for workhouses.

d Included in other expenditures for maintenance and operation.

e Not including \$65,435 expended by State and county.

f \$101,037 expended by State and county.

g Including expenditures for garbage removal.

h Including expenditures for police courts, jails, workhouses, reformatories, etc.

i Included in expenditures for police department.

j Not reported.

k Expenditures for Brambleton and Atlantic City wards included in other expenditures for maintenance and operation.

l \$60,000 expended by State and county.

m Supported by State and county.

n Not including \$17,287 expended by State and county.

o Data are for 8½ months.

TABLE XVI.—EXPENDITURES FOR MAINTENANCE AND OPERATION (2)—Continued.

Marginal number.	Cities.	Parks and gardens.	Sewers.	Street lighting.	Street cleaning and sprinkling.	Other street expenditures.	Garbage removal.	Interest on debt.
58	New Bedford, Mass.	\$18,879	\$13,438	\$48,364	\$11,089	\$79,946	\$15,000	\$210,762
59	Des Moines, Iowa	11,479	6,961	40,000	5,311	2,482		45,230
60	Springfield, Mass.	28,489	12,399	58,867	37,394	91,190	6,070	123,895
61	Somerville, Mass.	9,713	9,442	49,574	17,828	62,376	19,921	50,067
62	Froy, N. Y. (a)	2,470	3,445	49,715	b 110,052	5,421	(c)	45,194
63	Hoboken, N. J.	6,232	7,338	18,199	12,423	2,347	6,311	82,180
64	Evansville, Ind.	1,451	3,144	34,472	7,360	13,020	4,295	108,560
65	Manchester, N. H.	5,911	4,680	55,650	13,692	38,259	17,633	84,601
66	Utica, N. Y.	3,745	2,189	60,696	18,912	5,629	5,793	16,165
67	Peoria, Ill.	10,235	6,311	42,656	20,016	40,042		40,807
68	Charleston, S. C.	4,066	3,743	30,000	16,018	18,894	21,772	155,793
69	Savannah, Ga.	7,912	12,934	39,182	17,759	84,339	39,010	162,835
70	Salt Lake City, Utah	5,666	17,085	29,443	27,881	45,323	d 4,016	159,229
71	San Antonio, Tex.	10,848	46	34,076	8,099	22,717		112,611
72	Duluth, Minn.	10,914	6,144	32,237	8,517	33,566		314,018
73	Erie, Pa.	2,396	200	36,320	4,500	21,620		37,606
74	Elizabeth, N. J.	(c)	2,251	22,522	e 20,153	(c)	6,000	123,075
75	Wilkesbarre, Pa.	762	6,561	29,903		35,583		24,266
76	Kansas City, Kans.	(f)	(f)	(f)	(f)	(f)	(f)	(f)
77	Harrisburg, Pa.	800		32,083	5,670	28,794		63,379
78	Portland, Me.	7,053	12,407	45,834	15,567	54,733	4,881	137,640
79	Yonkers, N. Y.	356	4,355	73,452	21,879	30,417	21,870	138,412
80	Norfolk, Va.	g 6,774	g 14,166	g 19,875	h 30,236	g 16,638	(c)	249,144
81	Waterbury, Conn.	247	6,477	21,217	8,200	8,284	4,796	41,091
82	Holyoke, Mass.	5,476	2,103	27,630	18,218	17,348	20,000	88,530
83	Fort Wayne, Ind.	10,024	2,500	29,426	9,552	8,788	6,764	35,516
84	Youngstown, Ohio	153	2,199	23,294	16,092	995		34,768
85	Houston, Tex.	6,837	2,515	19,975	4,307	74,483	14,187	24,749
86	Covington, Ky.		4,297	15,970	10,286	21,119	3,253	96,048
87	Akron, Ohio	3,067	1,275	33,019	12,106	35,934		28,251
88	Dallas, Tex.	2,898	200	23,000	15,630	31,229		103,971
89	Saginaw, Mich.	539	(i)	23,985	6,037	j 43,730		60,565
90	Lancaster, Pa.		165	30,762	7,373	16,445		31,212
91	Lincoln, Nebr.	100	3,879	18,040	6,966	61,382	1,300	92,478
92	Brockton, Mass.		17,124	28,366	29,562	139,120	10,740	81,379
93	Binghamton, N. Y.	2,611	2,620	39,599	k 34,992	(c)		22,129
94	Augusta, Ga.	1,000	1,500	23,500	3,789	4,869	4,375	102,301
95	Pawtucket, R. I.	242	8,988	30,583	25,233	27,254	4,000	179,160
96	Altoona, Pa.		1,000	16,172	3,039	8,606		42,917
97	Wheeling, W. Va.		1,616		5,716	6,149	5,670	25,015
98	Mobile, Ala.	1,881		17,350	(l)	b 24,484	(i)	14,865
99	Birmingham, Ala.	728	1,127	18,502	m 4,282	42,272	9,600	53,170
100	Little Rock, Ark.		1,937		(l)	6,758		5,825
101	Springfield, Ohio.	5,876	1,088	27,090	1,625	22,789	1,695	45,542
102	Galveston, Tex.	131			4,880	52,945	18,983	188,990
103	Tacoma, Wash.	5,834	15,513		k 22,443	(c)		148,531
104	Haverhill, Mass.	10,088	3,656	33,636	10,444	63,486	2,725	80,685
105	Spokane, Wash.	9,377	3,244	9,617	6,032	9,829		143,622
106	Terre Haute, Ind. (n)	1,791	21,900	17,142	24,325	17,550	3,453	15,974
107	Dubuque, Iowa		5,386	23,431	8,000	33,957	1,531	56,330
108	Quincy, Ill.	6,460	1,021	17,639	3,605	9,755	2,431	57,556
109	South Bend, Ind.	2,636	151	17,332	k 18,110	(c)		39,259

a Data are for 10 months.

b Including expenditures for garbage removal.

c Included in expenditures for street cleaning and sprinkling.

d Expended for burning garbage; expenditures for garbage removal included in expenditures for health department.

e Including expenditures for parks and gardens and other street expenditures.

f Not reported.

g Expenditures for Brambleton and Atlantic City wards included in other expenditures for maintenance and operation.

h Including expenditures for garbage removal; expenditures for Brambleton and Atlantic City wards included in other expenditures for maintenance and operation.

i Included in other street expenditures.

j Including expenditures for sewers and docks, wharves, etc.

k Including other street expenditures.

l Cleaning done by chain gang.

m For cleaning only; sprinkling paid for by property owners.

n Data are for 8½ months.

TABLE XVI.—EXPENDITURES FOR MAINTENANCE AND OPERATION (\$)—Continued.

Marginal number.	Cities.	Water-works.	Gas works.	Electric-light plants.	Docks, wharves, ferries, bridges, markets, cemeteries, etc.	Other.	Total.
58	New Bedford, Mass.	\$54,101			\$35,571	\$153,075	\$1,132,079
59	Des Moines, Iowa					178,654	681,042
60	Springfield, Mass.	49,188			1,055	240,622	1,217,311
61	Somerville, Mass.	71,077			942	251,301	985,755
62	Troy, N. Y. (a)	62,735				89,873	730,557
63	Hoboken, N. J.	147,931			5,018	62,712	746,827
64	Evansville, Ind.	31,099			2,857	124,898	606,975
65	Manchester, N. H.	30,263			14,449	b 181,472	b 724,944
66	Utica, N. Y.				6,010	c 123,956	539,006
67	Peoria, Ill.				7,310	79,749	568,119
68	Charleston, S. C.				3,100	63,774	524,742
69	Savannah, Ga.	28,252			12,629	78,883	684,041
70	Salt Lake City, Utah.	47,092			14,804	75,271	742,563
71	San Antonio, Tex.					43,524	428,379
72	Duluth, Minn.	63,726	\$22,343		6,058	167,180	1,002,000
73	Erie, Pa.	45,876			919	51,833	429,345
74	Elizabeth, N. J.					301,703	676,255
75	Wilkesbarre, Pa.				1,724	107,271	403,495
76	Kansas City, Kans.	(d)	(d)	(d)	(d)	(d)	(d)
77	Harrisburg, Pa.	28,624				64,351	419,759
78	Portland, Me.				19,955	459,061	1,071,808
79	Yonkers, N. Y.	41,206				428,019	1,089,273
80	Norfolk, Va.	40,038			9,639	e 185,186	761,836
81	Waterbury, Conn.	17,775				25,941	376,739
82	Holyoke, Mass.	31,925			1,634	221,576	773,202
83	Fort Wayne, Ind.	29,300			300	40,026	358,116
84	Youngstown, Ohio	20,318			5,407	41,789	356,083
85	Houston, Tex.				25,657	120,112	579,509
86	Covington, Ky.	24,646			200	48,605	406,772
87	Akron, Ohio				4,590	89,963	442,194
88	Dallas, Tex.	39,643				37,556	447,082
89	Saginaw, Mich.	25,911			(f)	57,344	464,724
90	Lancaster, Pa.	27,530			173	52,919	300,743
91	Lincoln, Nebr.	45,211				60,817	443,212
92	Brockton, Mass.	13,322			3,980	138,153	744,060
93	Binghamton, N. Y.	25,501			2,354	77,272	409,175
94	Augusta, Ga.	7,046			11,589	44,338	346,620
95	Pawtucket, R. I.	119,252			4,571	149,033	779,709
96	Altoona, Pa.	15,770			787	64,655	284,427
97	Wheeling, W. Va.	60,349	66,973	\$20,546	4,050	31,612	382,630
98	Mobile, Ala.				6,623	49,663	185,057
99	Birmingham, Ala.				4,359	44,633	303,020
100	Little Rock, Ark.			9,842		29,961	202,393
101	Springfield, Ohio	39,445			13,523	18,291	946,423
102	Galveston, Tex.	28,175		35,413	3,210	164,283	702,788
103	Tacoma, Wash.	41,733		47,798	1,553	100,176	595,945
104	Haverhill, Mass.	51,402			3,017	133,947	656,182
105	Spokane, Wash.	11,643			3,261	59,642	432,548
106	Terre Haute, Ind. (g)				10,067	45,518	371,231
107	Dubuque, Iowa					96,051	375,418
108	Quincy, Ill.				3,785	19,077	251,506
109	South Bend, Ind.	31,718			2,745	24,876	266,778

a Data are for 10 months.

b Including \$133,445 State and county tax.

c Including expenditures for police courts, jails, workhouses, reformatories, etc.

d Not reported.

e Including \$117,893 expended for various purposes in Brambleton and Atlantic City wards, which amount can not be traced to the various items of expenditure.

f Included in other street expenditures.

g Data are for 8½ months.

TABLE XVI.—EXPENDITURES FOR MAINTENANCE AND OPERATION (1)—Concluded.

Marginal number.	Cities.	Police department.	Police courts, jails, work-houses, reformatories, etc.	Fire department.	Health department.	Hospitals, asylums, almshouses, and other charities.	Schools.	Libraries, art galleries, museums, etc.
110	Salem, Mass.	a \$87,590	(b)	\$32,324	\$14,640	\$40,638	\$129,095	\$10,073
111	Johnstown, Pa.	17,771	.....	9,808	1,013	2,607	82,871	.....
112	Elmira, N. Y.	(c)	(c)	(c)	(c)	(c)	(c)	(c)
113	Allentown, Pa.	10,612	.....	14,694	3,299	.....	95,008	.....
114	Davenport, Iowa.	23,327	.....	28,748	6,654	.....	123,783	.....
115	McKeesport, Pa.	25,835	\$1,500	26,935	1,933	.....	90,565	.....
116	Springfield, Ill.	28,200	3,152	38,868	1,517	.....	94,617	3,684
117	Chelsea, Mass.	34,888	.....	32,054	17,321	51,893	121,187	4,737
118	Malden, Mass.	31,675	.....	33,369	2,041	34,665	171,871	12,766
119	Topeka, Kans.	a 20,939	(b)	28,230	8,476	.....	100,629	5,922
120	Sioux City, Iowa.	17,740	2,239	22,032	3,865	.....	111,350	2,694
121	Knoxville, Tenn.	a 21,644	(b)	23,723	1,068	3,704	51,422	.....
122	Chattanooga, Tenn.	a 32,322	(b)	33,731	2,159	8,615	44,321	.....
123	Superior, Wis.	21,731	2,702	30,743	4,657	.....	109,121	3,500
124	Rockford, Ill.	14,761	1,677	23,256	1,868	1,106	93,357	4,968
125	Taunton, Mass.	36,520	1,227	26,567	2,956	30,182	104,575	4,828
126	Joliet, Ill.	25,157	1,600	25,569	4,500	2,000	80,758	2,485
127	Canton, Ohio.	a 20,078	(b)	26,846	2,912	2,001	102,901	918
128	Butte, Mont.	51,721	7,600	51,936	9,153	.....	d 172,790	12,604
129	Auburn, N. Y.	16,000	1,500	21,692	3,650	17,151	76,408	2,000

a Including expenditures for police courts, jails, workhouses, reformatories, etc.

b Included in expenditures for police department.

c Not reported, on account of alleged defalcation.

d Including expenditures for school district extending beyond city limits.

TABLE XVI.—EXPENDITURES FOR MAINTENANCE AND OPERATION (2)—Concluded.

Marginal number.	Cities.	Parks and gardens.	Sewers.	Street lighting.	Street cleaning and sprinkling.	Other street expenditures.	Garbage removal.	Interest on debt.
110	Salem, Mass.....	\$6,651	\$4,051	\$41,762	\$10,734	\$49,331	\$2,759	\$49,149
111	Johnstown, Pa.....	621	500	16,344	2,500	13,690	.....	21,188
112	Elmira, N. Y.....	(a)	(a)	(a)	(a)	(a)	(a)	(a)
113	Allentown, Pa.....	.....	7,443	20,418	826	14,782	1,900	31,238
114	Davenport, Iowa.....	21,290	5,204	23,782	22,726	20,000	2,400	12,406
115	McKeesport, Pa.....	.....	1,000	16,994	3,500	10,840	b 1,129	17,839
116	Springfield, Ill.....	.....	1,484	34,500	14,329	2,939	.....	51,975
117	Chelsea, Mass.....	1,886	4,882	27,077	12,536	25,908	3,867	63,196
118	Malden, Mass.....	10,640	1,393	29,043	7,160	46,766	16,891	53,040
119	Topeka, Kans.....	.....	5,599	.....	c 35,882	(d)	602	34,498
120	Sioux City, Iowa.....	930	5,012	13,986	4,634	13,664	3,181	95,019
121	Knoxville, Tenn.....	.....	.....	24,013	5,000	16,457	3,500	72,365
122	Chattanooga, Tenn.....	3,889	642	15,087	3,955	9,200	5,152	52,868
123	Superior, Wis.....	150	2,225	12,640	c 22,169	(d)	.....	96,492
124	Rockford, Ill.....	672	1,257	20,083	7,596	46,347	1,108	23,284
125	Taunton, Mass.....	1,098	4,722	8,796	8,910	37,165	2,083	64,518
126	Joliet, Ill.....	.....	1,923	31,268	20,053	5,118	3,222	12,245
127	Canton, Ohio.....	2,296	6,347	22,619	c 28,877	(d)	.....	44,682
128	Butte, Mont.....	.....	500	18,898	11,792	37,338	b 2,780	c 32,826
129	Auburn, N. Y.....	.....	500	25,000	3,649	4,279	3,850	29,772

a Not reported, on account of alleged defalcation.

b Expended for burning garbage.

c Including other street expenditures.

d Included in expenditures for street cleaning and sprinkling.

e Including expenditures for school district extending beyond city limits.

TABLE XVI.—EXPENDITURES FOR MAINTENANCE AND OPERATION (3)—Concluded.

Marginal number.	Cities.	Water-works.	Gas works.	Electric-light plants.	Docks, wharves, ferries, bridges, markets, cemeteries, etc.	Other.	Total.
110	Salem, Mass.....	\$30,395			\$3,136	\$154,735	\$622,063
111	Johnstown, Pa.....				2,986	25,724	197,628
112	Elmira, N. Y.....	(a)	(a)	(a)	(a)	(a)	(a)
113	Allentown, Pa.....	37,734			180	17,716	255,795
114	Davenport, Iowa.....				10,051	76,839	\$77,210
115	McKeesport, Pa.....	24,876				46,942	269,888
116	Springfield, Ill.....	18,101			13,661	46,655	353,672
117	Chelsea, Mass.....	34,429				61,096	487,067
118	Malden, Mass.....	91,281			11,795	138,308	692,704
119	Topeka, Kans.....			\$10,974	1,867	87,508	291,121
120	Sioux City, Iowa.....	32,472			11,849	72,577	413,244
121	Knoxville, Tenn.....				2,162	84,253	259,311
122	Chattanooga, Tenn.....					50,025	261,816
123	Superior, Wis.....				1,547	27,126	334,808
124	Rockford, Ill.....	28,121			4,153	25,460	299,093
125	Taunton, Mass.....	21,471		24,758	3,341	136,624	520,281
126	Joliet, Ill.....	23,230			1,275	59,934	300,337
127	Canton, Ohio.....	26,154			86	27,067	813,683
128	Butte, Mont.....					107,907	b 517,845
129	Auburn, N. Y.....	23,393			250	11,250	240,344

a Not reported, on account of alleged defalcation.

b Including expenditures for school district extending beyond city limits, and unpaid warrants which can not be traced to the various items of expenditure.

TABLE XVII.—SUMMARY OF INCOME AND EXPENDITURES.

Marginal number.	Cities.	Income.	Expenditures.			Cash on hand at end of fiscal year.
			For construction and other capital outlay.	For maintenance and operation.	Total.	
1	New York, N. Y.	\$205,010,549	\$104,033,118	\$82,220,127	\$186,253,245	\$18,757,304
2	Chicago, Ill. (c)	33,048,449	10,347,448	19,744,267	30,091,715	2,956,734
3	Philadelphia, Pa.	36,778,050	8,497,840	19,234,368	27,732,308	9,045,842
4	St. Louis, Mo.	14,990,461	1,889,814	9,110,841	10,980,655	4,009,806
5	Boston, Mass.	45,747,243	20,887,066	19,762,543	40,629,609	5,117,634
6	Baltimore, Md.	10,745,417	2,628,318	7,121,020	9,749,338	996,079
7	Cleveland, Ohio.	13,206,499	4,117,968	5,307,332	9,425,790	3,780,709
8	Buffalo, N. Y.	9,744,723	3,657,763	5,326,708	9,184,471	560,252
9	San Francisco, Cal.	9,219,377	4,599,665	7,518,815	18,118,480	1,180,819
10	Cincinnati, Ohio.	10,760,337	2,168,209	6,133,701	8,301,910	2,458,427
11	Pittsburg, Pa.	7,988,427	3,029,971	4,954,414	7,984,385	4,042
12	New Orleans, La.	4,635,705	711,750	3,667,194	4,378,944	156,761
13	Detroit, Mich.	6,857,460	1,356,151	4,122,381	5,479,082	1,378,378
14	Milwaukee, Wis.	5,125,714	1,180,774	3,628,501	4,659,275	466,439
15	Washington, D. C.	7,267,461	853,885	6,171,708	7,025,593	(j)
16	Newark, N. J.	10,004,420	4,427,135	4,638,676	9,065,811	938,609
17	Jersey City, N. J.	8,107,598	2,694,364	4,741,587	7,435,951	671,647
18	Louisville, Ky.	4,370,059	1,475,497	2,588,219	4,063,716	306,343
19	Minneapolis, Minn.	4,491,797	1,009,512	2,691,462	3,700,974	790,823
20	Providence, R. I.	7,530,407	3,387,673	3,978,199	7,365,372	164,175
21	Indianapolis, Ind.	2,797,680	675,561	1,961,198	2,636,759	160,921
22	Kansas City, Mo.	2,553,387	403,294	1,925,152	2,328,446	224,941
23	St. Paul, Minn.	4,540,334	1,774,711	2,192,678	3,967,389	572,945
24	Rochester, N. Y.	7,294,366	3,631,321	2,798,810	6,430,131	864,235
25	Denver, Colo.	2,631,245	633,023	1,679,136	2,312,169	319,086
26	Toledo, Ohio.	2,441,041	451,620	1,598,104	2,049,724	391,317
27	Allegheny, Pa.	2,834,492	775,740	1,795,330	2,571,070	263,422
28	Columbus, Ohio.	2,612,301	930,484	1,639,554	2,570,038	42,263
29	Worcester, Mass.	5,745,572	2,734,152	2,708,789	5,442,941	802,631
30	Syracuse, N. Y.	2,637,481	569,273	1,745,014	2,314,287	323,194
31	New Haven, Conn.	2,921,044	1,590,416	1,251,916	2,842,332	78,712
32	Paterson, N. J.	2,785,277	1,259,379	1,505,431	2,764,810	20,467
33	Fall River, Mass.	3,234,908	1,575,472	1,589,224	3,164,696	70,212
34	St. Joseph, Mo.	710,493	129,459	601,620	631,079	79,414
35	Omaha, Nebr.	2,479,633	507,697	1,422,178	1,929,375	549,756
36	Los Angeles, Cal.	2,090,652	225,759	1,434,296	1,660,055	501,816
37	Memphis, Tenn.	1,193,935	297,405	673,581	971,086	222,849
38	Scranton, Pa.	1,052,394	120,353	657,911	778,264	274,130
39	Lowell, Mass.	3,485,753	1,686,932	1,705,138	3,392,060	93,693
40	Albany, N. Y.	3,095,781	1,184,484	1,416,612	2,601,096	494,685
41	Cambridge, Mass.	3,445,780	1,422,406	9,851,328	3,273,734	172,046
42	Portland, Oreg.	1,807,754	483,059	961,370	1,445,029	362,725
43	Atlanta, Ga.	1,805,055	182,654	1,411,649	1,594,303	210,752
44	Grand Rapids, Mich.	2,292,198	563,482	1,157,579	1,711,061	581,137
45	Dayton, Ohio.	2,282,524	606,850	994,809	1,601,659	680,865
46	Richmond, Va.	1,683,829	334,067	1,239,534	1,573,621	110,208
47	Nashville, Tenn.	1,215,294	263,376	909,603	1,172,979	42,315
48	Seattle, Wash.	1,511,090	374,615	816,811	1,191,426	319,664
49	Hartford, Conn.	2,387,636	1,012,686	1,199,928	2,212,614	175,022
50	Reading, Pa.	960,451	229,560	519,906	749,468	210,983
51	Wilmington, Del.	922,371	197,201	631,802	829,003	93,368
52	Camden, N. J.	1,749,667	600,243	961,560	1,561,303	187,864
53	Trenton, N. J.	1,628,877	293,383	1,250,578	1,543,951	84,916
54	Bridgeport, Conn.	1,137,914	167,617	755,307	922,224	214,990
55	Lynn, Mass.	2,515,493	1,152,096	1,302,396	2,454,496	60,997
56	Oakland, Cal.	854,612	46,469	800,626	847,096	7,517
57	Lawrence, Mass.	1,614,528	386,128	1,145,915	1,532,043	82,485
58	New Bedford, Mass.	2,305,515	1,137,118	1,132,079	2,269,197	87,318
59	Des Moines, Iowa.	1,056,330	137,598	681,042	818,640	236,690
60	Springfield, Mass.	2,341,678	917,405	1,217,311	2,134,716	206,962

a Including cash in sinking fund at beginning of fiscal year.

b Including cash in sinking fund.

c Not including data relating to sanitary district of Chicago.

d Including income of county.

e Including \$137,367 expended by county.

f Including \$1,189,955 expended by county.

g Including \$1,327,322 expended by county.

h Including cash in county treasury.

i Including unpaid warrants which can not be traced to the various items of expenditure; total amount, \$79,922.

j Cash on hand at end of fiscal year required by law to be returned to United States Treasury, when it is available only by reappropriation of Congress.

k Including unpaid warrants which can not be traced to the various items of expenditure; total amount, \$71,219.

l Including \$155,673 State and county tax.

m Including State and county tax.

TABLE XVII.—SUMMARY OF INCOME AND EXPENDITURES—Continued.

Marginal number.	Cities.	Income.	Expenditures.			Cash on hand at end of fiscal year.
			For construction and other capital outlay.	For maintenance and operation.	Total.	
61	Somerville, Mass.	\$2,160,350	\$1,103,283	\$985,755	\$2,089,038	\$71,312
62	Troy, N. Y. (a)	1,319,851	495,181	730,567	1,225,738	94,113
63	Hoboken, N. J.	1,912,276	1,062,811	746,827	1,809,638	102,638
64	Evansville, Ind.	935,865	182,569	606,975	789,544	146,321
65	Manchester, N. H.	b1,346,905	457,003	c724,944	c1,181,947	164,956
66	Utica, N. Y.	893,684	330,366	539,006	869,372	24,312
67	Peoria, Ill.	1,206,679	515,076	568,119	1,083,195	123,484
68	Charleston, S. C.	603,049	68,724	524,742	593,466	9,583
69	Savannah, Ga.	869,276	168,804	684,041	852,845	16,431
70	Salt Lake City, Utah	885,194	62,530	742,563	805,093	80,101
71	San Antonio, Tex.	560,696	132,317	428,379	560,696	
72	Duluth, Minn.	2,003,228	622,527	1,002,000	1,624,527	378,701
73	Erie, Pa.	724,645	240,595	429,345	669,940	54,705
74	Elizabeth, N. J.	884,200	96,968	676,255	773,221	110,979
75	Wilkesbarre, Pa.	634,316	139,651	408,496	543,146	91,170
76	Kansas City, Kans.	1,352,033	(d)	(d)	1,107,716	244,317
77	Harrisburg, Pa.	602,072	112,806	419,759	532,565	69,507
78	Portland, Me.	1,551,146	381,459	1,071,803	1,453,262	97,884
79	Yonkers, N. Y.	2,055,585	788,992	1,089,273	1,878,265	177,270
80	Norfolk, Va.	1,678,215	576,676	761,836	1,338,512	339,703
81	Waterbury, Conn.	730,144	298,016	376,739	674,755	55,389
82	Holyoke, Mass.	1,778,369	970,068	773,202	1,743,270	58,099
83	Fort Wayne, Ind.	644,077	116,009	358,116	474,125	169,952
84	Youngstown, Ohio	776,109	224,003	356,083	580,086	196,023
85	Houston, Tex.	854,441	209,689	579,509	789,198	65,243
86	Covington, Ky.	850,092	263,969	406,772	670,741	179,351
87	Akron, Ohio.	913,681	257,271	442,194	699,465	214,216
88	Dallas, Tex.	742,616	125,648	447,082	572,730	169,886
89	Saginaw, Mich.	907,350	353,079	464,724	817,803	89,547
90	Lancaster, Pa.	425,714	94,759	300,743	395,502	80,212
91	Lincoln, Nebr.	612,746	99,064	443,212	542,276	70,470
92	Brockton, Mass.	1,615,993	806,580	744,060	1,550,640	65,353
93	Binghamton, N. Y.	663,386	116,169	409,175	525,344	138,042
94	Augusta, Ga.	e740,865	375,378	346,620	721,998	18,867
95	Pawtucket, R. I.	1,634,336	810,140	779,709	1,589,849	44,487
96	Altoona, Pa.	426,625	94,763	284,427	379,190	47,435
97	Wheeling, W. Va.	566,774	143,602	382,630	526,232	30,542
98	Mobile, Ala.	965,415	773,478	185,057	958,535	6,880
99	Birmingham, Ala.	333,614		303,020	303,020	30,594
100	Little Rock, Ark.	232,780	29,312	202,393	231,705	1,075
101	Springfield, Ohio.	764,305	335,847	346,423	682,270	82,085
102	Galveston, Tex.	763,687	42,653	702,788	745,441	18,246
103	Tacoma, Wash.	1,037,697	196,113	595,945	792,058	245,639
104	Haverhill, Mass.	1,170,052	488,870	656,182	1,145,052	25,000
105	Spokane, Wash.	1,365,553	797,826	432,548	1,230,374	135,179
106	Terre Haute, Ind. (g)	624,916	150,982	371,231	522,213	102,708
107	Dubuque, Iowa	660,144	185,025	375,418	560,443	99,701
108	Quincy, Ill.	576,927	228,327	251,506	479,832	97,095
109	South Bend, Ind.	647,695	235,203	256,778	491,981	156,714
110	Salem, Mass.	1,138,963	516,150	622,063	1,138,213	750
111	Johnstown, Pa.	351,422	115,017	197,623	312,640	38,782
112	Elmira, N. Y.	(h)	(h)	(h)	(h)	(h)
113	Allentown, Pa.	450,107	104,552	255,795	360,347	89,760
114	Davenport, Iowa	533,645	116,630	377,210	493,840	39,805
115	McKeesport, Pa.	511,399	153,485	269,888	423,373	88,026
116	Springfield, Ill.	556,024	149,122	353,672	502,794	53,230
117	Chelsea, Mass.	1,009,560	489,481	487,057	976,538	33,022
118	Malden, Mass.	1,254,124	536,027	692,704	1,228,731	25,393
119	Topeka, Kans.	779,432	201,182	291,121	492,303	287,129
120	Sioux City, Iowa	563,368	45,222	418,244	458,466	94,902

a Data are for 10 months.

b Including State and county tax.

c Including \$133,445 State and county tax.

d Not reported.

e Including cash in sinking fund at beginning of fiscal year.

f Including cash in sinking fund.

g Data are for 8½ months.

h Not reported, on account of alleged defalcation.

TABLE XVII.—SUMMARY OF INCOME AND EXPENDITURES—Concluded.

Marginal number.	Cities.	Income.	Expenditures.			Cash on hand at end of fiscal year.
			For construction and other capital outlay.	For maintenance and operation.	Total.	
121	Knoxville, Tenn.	\$441, 198	\$148, 529	\$259, 811	\$407, 840	\$38, 353
122	Chattanooga, Tenn.	294, 104	21, 873	261, 816	283, 189	10, 915
123	Superior, Wis.	560, 266	49, 427	384, 808	384, 230	176, 036
124	Rockford, Ill.	658, 558	351, 933	299, 093	651, 026	7, 527
125	Taunton, Mass.	1, 031, 423	440, 765	520, 281	961, 046	70, 377
126	Joliet, Ill.	590, 898	165, 627	300, 337	466, 964	124, 929
127	Canton, Ohio.	630, 556	164, 444	313, 683	478, 127	152, 429
128	Butte, Mont.	^a 683, 961	^b 126, 198	^b 517, 845	^b 644, 043	^c 136, 088
129	Auburn, N. Y.	406, 260	74, 370	240, 344	314, 714	90, 546

^a Including income of school district extending beyond city limits.

^b Including expenditures for school district extending beyond city limits and unpaid warrants which can not be traced to the various items of expenditure; total amount of unpaid warrants, \$96 170.

^c Including cash in school district treasury.

TABLE XVIII.—ASSETS (1).

Mar- ginal num- ber.	Cities.	Cash in treasury.	Uncollect- ed taxes.	Cash and bonds in sinking fund.	City hall.		
					Land and buildings.	Appara- tus, etc.	Total.
1	New York, N. Y.	\$13,556,738	\$44,656,942	\$110,636,438	\$8,257,000	\$1,500,000	\$9,757,000
2	Chicago, Ill.	2,956,734		2,364,710	1,717,687	300,000	2,017,687
3	Philadelphia, Pa.	9,046,842	2,479,272	15,561,200	(b)	(b)	13,604,000
4	St. Louis, Mo.	4,009,806	1,382,365		1,643,750	64,670	1,608,420
5	Boston, Mass.	65,117,634	5,751,201	d 27,697,094	(b)	(b)	1,620,800
6	Baltimore, Md.	996,079	1,853,734	6,212,077	4,789,835	(b)	(b)
7	Cleveland, Ohio.	2,780,709	331,968	2,377,371		47,652	47,652
8	Buffalo, N. Y.	560,252	1,660,572	1,371,089	1,607,400		1,607,400
9	San Francisco, Cal.	1,130,819	200,000	217,504	(b)	(b)	c 7,540,000
10	Cincinnati, Ohio.	1,754,416	216,157	1,927,644	1,763,441	100,000	1,863,441
11	Pittsburg, Pa.	4,042	1,204,172	4,678,324	1,221,964	150,000	1,371,964
12	New Orleans, La.	156,761	4,238,881		150,000	30,000	180,000
13	Detroit, Mich.	1,378,378	1,014,100	1,896,564	(b)	(b)	2,202,330
14	Milwaukee, Wis.	466,439	2,730,073		(b)	(b)	1,200,000
15	Washington, D. C.	(g)	1,170,235	713,916			
16	Newark, N. J.	938,609	950,000	3,857,520	(b)	(b)	150,000
17	Jersey City, N. J.	671,647	3,769,420	2,762,029	750,000	100,000	850,000
18	Louisville, Ky.	306,343	2,088,886	785,116	455,000	75,000	530,000
19	Minneapolis, Minn.	790,823	696,522	1,736,317	1,306,122	(h)	i 1,306,122
20	Providence, R. I.	164,175	25,247	3,725,818	1,123,900	50,000	1,173,900
21	Indianapolis, Ind.	160,921	104,363				
22	Kansas City, Mo.	224,941	20,000	1,373,914	m 430,000	n 15,000	o 430,000
23	St. Paul, Minn.	572,945	650,000	612,993	(b)	(b)	(b)
24	Rochester, N. Y.	864,235	1,271,907	561,884	335,000	50,000	385,000
25	Denver, Colo.	319,086	591,148	234,251	j 225,000	35,000	j 260,000
26	Toledo, Ohio.	391,317	278,674	672,374			
27	Allaheny, Pa.	263,422	489,204	1,406,323	500,000	50,000	550,000
28	Columbus, Ohio.	42,263	41,076	2,350,522	r 95,000	6,408	r 101,408
29	Worcester, Mass.	302,631	355,068	3,613,703	720,680	40,200	760,880
30	Syracuse, N. Y.	323,194	1,193,710		450,000	14,747	464,747
31	New Haven, Conn.	78,712	s 553,399	217,983	240,755	6,000	246,755
32	Paterson, N. J.	20,467	1,185,174		521,000	68,400	589,400
33	Fall River, Mass.	70,212	288,569	1,311,904	410,000	12,500	422,500
34	St. Joseph, Mo.	79,414	67,408	26,444	v 145,000	5,000	v 150,000
35	Omaha, Neb.	549,758	2,403,302		582,675	40,500	633,175
36	Los Angeles, Cal.	501,816	11,483	90,275	r 306,355	7,750	r 314,105
37	Memphis, Tenn.	222,849	199,267	86,293		5,000	5,000
38	Scranton, Pa.	274,130	35,323	226,090	240,000	5,000	245,000
39	Lowell, Mass.	83,693	473,912	567,965	410,000	6,000	416,000
40	Albany, N. Y.	494,685	230,435	1,446,299	315,000	155,000	470,000
41	Cambridge, Mass.	172,046	429,302	1,596,818	272,000	42,500	314,500
42	Portland, Oreg.	362,725	2,938	2,794	x 675,000	25,000	x 700,000
43	Atlanta, Ga.	210,752	(b)	118,590			
44	Grand Rapids, Mich.	581,137	365,747	136,176	r 300,000	25,000	r 325,000
45	Dayton, Ohio.	680,865	58,372	138,057	y 225,000	40,000	y 265,000
46	Richmond, Va.	110,208	526,998	370,778	(b)	(b)	1,401,550
47	Nashville, Tenn.	42,315	200,000		z 35,000	15,000	aa 50,000
48	Seattle, Wash.	319,664	179,311		(b)	(b)	o 61,000
49	Hartford, Conn.	175,022	121,825	450,012	497,500	11,883	609,383
50	Reading, Pa.	210,983	81,740	71,933	35,000	3,000	38,000
51	Wilmington, Del.	93,368	55,000		(b)	(b)	cc 250,000
52	Camden, N. J.	187,864	191,818	89,733	(b)	(b)	a 140,000
53	Trenton, N. J.	84,916	(b)	1,167,920	75,000	5,000	80,000
54	Bridgeport, Conn.	214,990	125,000	367,594	150,000	2,500	152,500
55	Lynn, Mass.	60,997	509,794	1,129,804	(b)	(b)	315,000
56	Oakland, Cal.	7,517	4,264	3,000	(b)	(b)	dd 500,000
57	Lawrence, Mass.	82,485	217,371	798,936	112,500	3,500	116,000
58	New Bedford, Mass.	37,318	135,799	736,180	(b)	(b)	141,466
59	Des Moines, Iowa.	236,690	181,267	63,047	e 64,000	3,765	j 67,765
60	Springfield, Mass.	206,962	153,618	506,654	118,000	17,669	135,669
61	Somerville, Mass.	71,312	388,126		62,250	10,000	72,250
62	Troy, N. Y.	94,113	42,581	77,372	300,000	25,000	325,000
63	Hoboken, N. J.	102,638	76,250	68,251	a 250,000	a 16,000	a 266,000
64	Evansville, Ind.	146,321	125,281	10,008	50,000	10,000	60,000
65	Manchester, N. H.	164,958	59,973	232,733	170,000	4,149	174,149

a Including jails.

b Not reported.

c Including cash in county treasury.

d Including county sinking fund.

e Including police department, libraries, jails, hospitals, and asylums, almshouses, etc.

f Included in city hall.

g Cash on hand at end of fiscal year required by law to be returned to United States Treasury, when it is available only by reappropriation of Congress.

h Included in other assets.

i Not including apparatus, etc.

j Including land and buildings for jails.

k Not including apparatus, etc., but including land and buildings for jails.

l Actual value. m Including land and buildings for police department and jails.

n Including apparatus, etc., for jails.

o Including jails and land and buildings for police department.

p Included in land and buildings for city hall.

q Not including land and buildings.

r Including land and buildings for libraries.

s Including \$68,307 street and sewer and street sprinkling assessments.

TABLE XVIII.—ASSETS (1).

Police department.			Fire department.			Schools.			Marginal number.
Land and buildings.	Apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.	
\$3,880,599	\$900,000	\$4,780,599	\$4,089,575	\$3,723,750	\$7,813,325	\$44,342,148	\$2,079,618	\$46,421,766	1
a 949,090	a 216,591	a 1,165,681	1,041,373	954,510	1,995,883	19,487,909	3,010,896	22,498,805	2
(b)	(b)	857,600	(b)	(b)	597,200	(b)	(b)	8,388,600	3
110,750	20,000	130,750	472,080	386,865	858,945	6,781,506	131,605	6,913,111	4
(b)	(b)	908,700	(b)	(b)	1,603,000	(b)	(b)	11,222,400	5
350,000	103,500	453,500	358,498	400,000	758,498	2,863,510	367,607	3,231,117	6
394,325	40,047	434,372	409,379	316,843	726,222	4,350,789	278,119	4,628,908	7
357,025	68,321	425,346	444,377	610,433	1,054,810	2,983,400	479,494	3,462,899	8
(f)	(f)	(f)	(f)	(f)	1,656,000	(b)	(b)	5,415,200	9
129,000	88,900	217,900	569,250	700,770	1,270,020	3,531,704	200,594	3,732,298	10
203,882	88,358	292,240	516,568	328,085	844,653	3,460,000	40,000	3,500,000	11
10,000	5,000	15,000	50,000	150,000	200,000	900,000	100,000	1,000,000	12
(b)	(b)	316,992	(b)	(b)	1,609,665	(b)	(b)	2,875,385	13
(b)	(b)	252,227	(b)	(b)	987,093	(b)	(b)	3,204,760	14
128,770	20,025	148,795	234,442	170,000	404,442	4,305,108	228,250	4,533,358	15
80,000	50,000	130,000	610,000	100,000	710,000	(b)	(b)	2,262,875	16
121,000	25,000	146,000	130,340	100,000	230,340	1,373,850	105,044	1,478,894	17
31,778	8,000	39,778	284,050	201,340	485,390	1,224,645	106,000	1,330,645	18
92,234	(h)	492,234	429,555	(h)	1,429,555	2,825,477	(h)	1,825,477	19
337,009	78,175	415,184	417,895	237,501	655,396	2,622,156	50,000	2,672,156	20
112,000	46,080	158,080	168,100	127,457	295,557	2,300,000	93,355	2,393,355	21
(p)	7,500	7,500	172,000	120,000	292,000	1,726,230	200,575	1,926,805	22
(b)	(b)	(b)	377,310	226,000	603,310	2,426,400	117,350	2,543,950	23
75,000	15,000	90,000	400,000	100,000	500,000	r 1,465,000	160,000	r 1,625,000	24
n 80,000	n 80,000	n 80,000	128,000	195,000	323,000	2,742,213	130,679	2,872,892	25
a 87,025	a 6,046	a 93,071	162,675	151,633	314,328	1,000,000	425,000	1,425,000	26
8,032	8,032	181,000	87,350	122,320	209,670	1,222,919	17,300	2,140,419	27
52,000	7,490	59,490	290,387	173,776	464,163	2,207,549	149,796	2,357,345	28
93,949	5,667	99,616	369,356	148,867	518,223	2,114,511	374,658	2,489,177	29
3,500	22,500	26,000	135,000	134,200	269,800	1,306,100	106,178	1,412,278	30
184,971	3,000	187,971	162,000	191,468	354,068	1,500,517	99,000	1,599,517	31
46,000	16,800	62,800	96,000	108,620	204,620	700,000	65,000	765,000	32
t 298,800	20,048	t 318,848	(u)	131,927	q 131,927	1,699,650	61,800	1,752,450	33
30,000	3,500	33,500	65,500	45,000	110,500	580,210	52,345	632,555	34
w 50,000	w 12,600	w 62,600	73,704	92,000	165,704	1,609,165	85,000	1,694,165	35
a 118,489	a 8,807	a 127,296	56,813	163,795	220,610	1,130,031	75,624	1,205,655	36
w 50,000	w 8,366	w 58,366	118,060	73,240	191,300	413,248	17,342	430,590	37
10,000	10,000	46,260	93,428	139,688	233,116	1,544,634	125,000	1,669,634	38
75,500	17,000	92,500	261,500	117,000	378,500	1,559,002	48,000	1,607,002	39
57,000	20,633	77,633	163,000	247,928	410,928	1,074,000	80,000	1,154,000	40
22,100	16,948	39,048	179,800	75,000	254,800	1,588,900	141,135	1,730,035	41
a 25,000	a 5,000	a 30,000	205,750	132,478	338,228	1,055,245	49,786	1,096,031	42
a 125,000	a 32,000	a 157,000	188,600	65,000	253,600	680,000	65,000	745,000	43
73,725	5,000	78,725	103,154	110,609	213,763	1,099,000	88,000	1,187,000	44
(p)	15,000	q 15,000	135,000	66,500	201,500	1,166,561	52,445	1,219,046	45
2,588	(b)	i 2,588	71,400	105,320	176,720	442,500	25,750	468,250	46
(bb)	4,000	q 4,000	m 97,400	216,825	m 314,225	438,803	25,950	464,753	47
(f)	12,646	q 12,646	22,850	152,855	175,735	675,000	50,000	725,000	48
101,000	12,028	113,028	134,100	103,725	237,825	2,060,000	84,500	2,144,500	49
(f)	1,000	1,000	110,000	95,930	205,930	826,300	77,500	903,800	50
10,000	8,775	18,775	71,000	49,599	120,599	596,837	78,068	675,505	51
a 47,000	a 25,000	a 72,000	75,000	53,000	128,000	572,700	56,712	629,412	52
30,000	7,925	37,925	(b)	(b)	207,231	778,997	124,541	902,538	53
a 45,000	a 8,162	a 53,162	148,400	71,577	219,977	(b)	(b)	1,020,000	54
(f)	(f)	(f)	17,000	68,820	86,320	1,000,000	70,000	1,070,000	55
46,000	10,660	56,660	85,600	73,000	158,600	(b)	(b)	603,128	56
71,376	9,550	80,926	141,965	85,050	227,015	(b)	(b)	8,340	57
(bb)	n 5,000	ce 5,000	f 150,000	62,000	f 202,000	927,200	37,515	964,715	58
78,600	14,540	93,140	172,705	125,216	297,921	1,647,382	125,694	1,773,076	59
45,000	3,000	48,000	158,896	68,399	227,295	1,061,733	51,189	1,112,922	60
91,000	1,000	92,000	285,000	78,944	363,944	435,000	20,500	456,500	61
35,000	2,000	37,000	167,000	51,970	218,970	635,000	30,000	665,000	62
a 28,000	a 5,000	a 33,000	80,000	85,000	165,000	700,000	33,950	733,950	63
64,000	7,250	71,250	145,548	107,178	252,726	739,156	36,750	775,806	64

t Including land and buildings for fire department.

u Included in land and buildings for police department.

v Including markets.

w Including jails and workhouses, reformatories, etc.

x Including land and buildings for art galleries, museums, etc.

y Including land and buildings for police department, and markets.

z Buildings only; land included in markets.

aa Not including land.

bb Included in land and buildings for fire department.

cc Including police department and jails.

dd Including police department, libraries, and jails.

ee Not including land and buildings, but including apparatus, etc., for jails.

ff Including land and buildings for police department.

TABLE XVIII.—ASSETS (2).

Marginal number.	Cities.	Libraries.			Art galleries, museums, etc.		
		Land and buildings.	Books, apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.
1	New York, N. Y.	\$100,000	\$200,000	\$300,000	\$18,915,000	\$895,000	\$19,810,000
2	Chicago, Ill.	2,127,250	365,956	2,493,206			
3	Philadelphia, Pa.		(b)	(b)			
4	St. Louis, Mo.	200,000	100,000	300,000			
5	Boston, Mass.	(b)	(b)	3,168,000			
6	Baltimore, Md.	350,000	225,000	575,000			
7	Cleveland, Ohio	3,438	175,500	178,938			
8	Buffalo, N. Y.						
9	San Francisco, Cal.	(c)	(c)	(c)			
10	Cincinnati, Ohio.	550,000	260,000	810,000			
11	Pittsburg, Pa.	1,149,790	125,340	1,275,130			
12	New Orleans, La.	75,000	50,000	125,000			
13	Detroit, Mich.	(b)	(b)	538,000			
14	Milwaukee, Wis.	(c)	(c)	(c)	(b)	(b)	\$1,056,000
15	Washington, D. C.		20,000	20,000			
16	Newark, N. J.	380,000	220,000	600,000			
17	Jersey City, N. J.	250,000	52,980	302,980			
18	Louisville, Ky.						
19	Minneapolis, Minn.	351,626	(g)	\$ 351,626			
20	Providence, R. I.						
21	Indianapolis, Ind.	140,000	100,000	240,000			
22	Kansas City, Mo.	250,000	75,000	325,000			
23	St. Paul, Minn.	(b)	(b)	(b)			
24	Rochester, N. Y.	(k)	33,500	133,500			
25	Denver, Colo.		50,000	50,000			
26	Toledo, Ohio.	75,000	65,000	140,000			
27	Allegheny, Pa.	500,000	145,000	645,000			
28	Columbus, Ohio.	(m)	53,025	153,025			
29	Worcester, Mass.	175,935	96,000	271,935			
30	Syracuse, N. Y.	40,000	65,000	105,000			
31	New Haven, Conn.	110,000	45,000	155,000			
32	Paterson, N. J.	65,000	35,000	100,000			
33	Fall River, Mass.	280,000	70,000	350,000			
34	St. Joseph, Mo.		30,000	80,000			
35	Omaha, Nebr.	\$ 162,985	\$ 150,000	\$ 312,985	(t)	(t)	(t)
36	Los Angeles, Cal.	(m)	60,672	160,672			
37	Memphis, Tenn.						
38	Scranton, Pa.	160,000	37,300	197,300			
39	Lowell, Mass.	200,000	60,000	260,000			
40	Albany, N. Y.				(b)	(b)	507,440
41	Cambridge, Mass.	186,000	66,000	252,000			
42	Portland, Oreg.				(m)	2,000	12,000
43	Atlanta, Ga.						
44	Grand Rapids, Mich.	(m)	66,000	166,000			
45	Dayton, Ohio.	500,000	65,000	565,000			
46	Richmond, Va.						
47	Nashville, Tenn.						
48	Seattle, Wash.		23,843	23,843			
49	Hartford, Conn.						
50	Reading, Pa.	25,000	20,000	45,000			
51	Wilmington, Del.	120,000	42,500	162,500			
52	Camden, N. J.						
53	Trenton, N. J.						
54	Bridgeport, Conn.	150,000	25,000	175,000			
55	Lynn, Mass.	225,000	180,000	405,000			
56	Oakland, Cal.	(c)	(c)	(c)			
57	Lawrence, Mass.		36,850	36,850			
58	New Bedford, Mass.	131,839	57,000	188,839			
59	Des Moines, Iowa.	76,000	50,000	126,000			
60	Springfield, Mass.						
61	Somerville, Mass.	41,410	25,000	66,410			
62	Troy, N. Y.						
63	Hoboken, N. J.	75,000	23,750	98,750			
64	Evansville, Ind.						
65	Manchester, N. H.	65,000	30,000	95,000			

a Included in police department.

b Not reported.

c Included in city hall.

d Including bath houses and bathing beaches.

e Included in art galleries, museums, etc.

f Including libraries.

g Included in other assets.

h Not including apparatus, etc.

i Included in land and buildings for police department.

j Included in police department and other assets.

k Included in land and buildings for schools.

TABLE XVIII.—ASSETS (2).

Parks.			Jails.			Workhouses, reformatories, etc.			Marginal number.
Land and buildings.	Apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.	
\$296,235,525	\$636,266	\$296,871,791	\$5,943,000	\$15,000	\$5,958,000	\$6,904,500	\$85,000	\$6,989,500	1
61,514,900	1,500,000	63,014,900	(a)	(a)	(a)	873,270	35,369	908,639	2
(b)	(b)	22,788,344	(b)	(b)	300,000	(b)	(b)	900,000	3
8,149,310	6,497	8,155,807	582,000	3,500	585,500	368,420	7,408	375,828	4
(b)	(b)	53,023,400	(b)	(b)	(b)	(b)	(b)	1,006,600	5
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	6
6,908,846	15,000	6,923,846				318,079	21,327	339,406	7
3,637,255	12,000	3,649,255							8
(b)	(b)	12,000,000	(c)	(c)	(c)				9
1,499,000	1,000	1,500,000				872,000	19,000	891,000	10
3,319,959	25,000	3,344,959							11
5,000,000	50,000	5,050,000	350,000	50,000	400,000	35,000	5,000	40,000	12
(b)	(b)	d 6,255,000				(b)	(b)	245,000	13
(b)	(b)	2,493,776							14
300,000		300,000				297,200	7,000	304,200	15
5,000,000		5,000,000				(b)	(b)	135,500	16
483,500	2,000	485,500							17
1,000,000	15,000	1,015,000				150,000	10,000	160,000	18
4,564,340	(g)	h 4,564,340	(i)	(g)	(j)	186,955	(g)	h 186,955	19
1,146,439	48,933	1,195,372							20
1,018,570	1,000	1,019,570							21
2,000,000	5,000	2,005,000	(c)	(c)	(c)	75,000	3,000	78,000	22
(b)	(b)	(b)							23
500,000	6,000	506,000							24
2,551,500	8,000	2,559,500	(m)	(n)	(o)				25
2,000,000		2,000,000	(a)	(a)	(a)	80,000	5,000	35,000	26
2,328,184	1,500	2,329,684							27
381,500	1,700	383,200				74,400	6,321	80,721	28
8,404,000	1,000	8,405,000							29
p 1,496,300	6,150	p 1,502,450							30
451,000	20,000	471,000							31
266,000		266,000							32
474,500		474,500	40,000		40,000				33
160,000	1,000	161,000	(g)	(g)	(g)	r 9,500	r 500	r 10,000	34
2,078,813	(b)	h 2,078,813	(a)	(a)	(a)	(a)	(a)	(a)	35
597,175	2,500	599,675	(a)	(a)	(a)				36
700,000		700,000	(a)	(a)	(a)	(a)	(a)	(a)	37
75,000	1,000	76,000							38
411,400	1,700	413,100							39
988,000		988,000							40
734,017	2,500	736,517							41
85,000	1,000	86,000	(a)	(a)	(a)				42
1,050,000	20,000	1,070,000	(a)	(a)	(a)				43
273,000	3,000	276,000							44
639,000	1,000	640,000							45
(b)	(b)	862,470	(b)	(b)	5,000				46
10,000		10,000	(u)	(u)	(u)	20,000	100	20,100	47
168,179	10,670	178,849	(c)	(c)	(c)				48
(b)	(b)	371,920							49
500,000		500,000							50
(b)	(b)	d 560,500	(c)	(c)	(c)				51
81,000		81,000	(c)	(c)	(c)				52
(b)	(b)	180,000	(a)	(a)	(a)				53
475,000	1,000	476,000							54
(b)	(b)	393,825	(a)	(a)	(a)				55
(b)	(b)	300,000	(c)	(c)	(c)				56
(b)	(b)	527,000							57
158,531		158,531							58
182,361	2,800	185,161	(m)	(n)	(o)				59
646,380		646,380							60
445,326		445,326							61
143,000	300	143,300							62
350,000	1,500	351,500	(c)	(c)	(c)				63
160,000	2,000	162,000	(a)	(a)	(a)				64
649,500		649,500				(r)	(r)	(r)	65

l Not including land and buildings.

m Included in land and buildings for city hall.

n Included in apparatus, etc., for police department.

o Included in city hall and police department.

p Including markets.

q Included in workhouses, reformatories, etc.

r Including jails.

s Including art galleries, museums, etc.

t Included in libraries.

u Included in land and buildings for fire department.

v Included in asylums, almshouses, etc.

TABLE XVIII.—ASSETS (3). •

Marginal number.	Cities.	Hospitals.			Asylums, almshouses, etc.			Docks and wharves.
		Land and buildings.	Apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.	
1	New York, N. Y.	\$9,325,500	\$1,300,000	\$10,625,500	\$5,795,250	\$300,000	\$6,095,250	\$67,336,000
2	Chicago, Ill.	135,784	14,116	149,900	(a)	(a)	1,608,000	25,247
3	Philadelphia, Pa.	(a)	(a)	465,000	(a)	(a)	1,381,100	823,000
4	St. Louis, Mo.	114,590	29,285	143,875	(a)	(a)	413,140	253,041
5	Boston, Mass.	(a)	(a)	3,157,800	(a)	(a)	1,381,100	512,100
6	Baltimore, Md.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
7	Cleveland, Ohio	150,000	18,000	168,000	475,535	13,863	489,398	447,500
8	Buffalo, N. Y.	31,165	(c)	31,165	(c)	(c)	(c)	(c)
9	San Francisco, Cal.	(c)	(c)	(c)	(c)	(c)	(c)	(c)
10	Cincinnati, Ohio	1,165,341	42,659	1,208,000	350,000	80,000	430,000	552,087
11	Pittsburg, Pa.	37,000	3,000	40,000	447,187	52,000	499,187	1,500,000
12	New Orleans, La.	1,000,000	50,000	1,050,000	50,000	5,000	55,000	400,000
13	Detroit, Mich.	(a)	(a)	30,000	(a)	(a)	(a)	(a)
14	Milwaukee, Wis.	(a)	(a)	98,360	(a)	(a)	(a)	(f)
15	Washington, D. C.	208,000	13,500	221,500	260,000	10,000	270,000	50,000
16	Newark, N. J.	275,000	50,000	325,000	(a)	(a)	121,000	100,000
17	Jersey City, N. J.	50,300	8,775	59,075	(a)	(a)	(a)	(a)
18	Louisville, Ky.	250,000	25,000	275,000	510,000	18,107	528,107	500,000
19	Minneapolis, Minn.	188,452	(i)	188,452	(a)	(a)	(a)	(a)
20	Providence, R. I.	(a)	(a)	(a)	373,894	11,215	385,109	(a)
21	Indianapolis, Ind.	130,000	24,392	154,392	(a)	(a)	(a)	(a)
22	Kansas City, Mo.	52,000	10,500	62,500	(a)	(a)	(a)	(a)
23	St. Paul, Minn.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
24	Rochester, N. Y.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
25	Denver, Colo.	(a)	(a)	27,000	(a)	(a)	(a)	(a)
26	Toledo, Ohio	(a)	(a)	(a)	(a)	(a)	(a)	(a)
27	Allegheny, Pa.	5,000	2,000	7,000	377,212	34,098	411,310	200,000
28	Columbus, Ohio	(a)	(a)	(a)	(a)	(a)	(a)	(a)
29	Worcester, Mass.	385,075	26,900	411,975	130,000	44,637	174,637	(a)
30	Syracuse, N. Y.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
31	New Haven, Conn.	(a)	(a)	(a)	235,432	31,034	266,466	(a)
32	Paterson, N. J.	26,000	1,000	27,000	1,000	10,500	117,500	45,500
33	Fall River, Mass.	67,000	7,000	74,000	42,500	11,811	54,311	(a)
34	St. Joseph, Mo.	5,000	1,000	6,000	(a)	(a)	(a)	(a)
35	Omaha, Nebr.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
36	Los Angeles, Cal.	(a)	(a)	1,200	(a)	(a)	(a)	(a)
37	Memphis, Tenn.	100,000	5,987	105,987	(a)	(a)	(a)	2,000,000
38	Scranton, Pa.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
39	Lowell, Mass.	(a)	(a)	(a)	200,000	31,393	231,393	(a)
40	Albany, N. Y.	(a)	(a)	(a)	(a)	(a)	315,000	25,000
41	Cambridge, Mass.	(a)	(a)	(a)	40,000	18,000	58,000	(a)
42	Portland, Oreg.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
43	Atlanta, Ga.	100,000	75,000	175,000	(a)	(a)	(a)	(a)
44	Grand Rapids, Mich.	12,000	800	12,800	(a)	(a)	(a)	(a)
45	Dayton, Ohio	45,000	500	45,500	(a)	(a)	(a)	(a)
46	Richmond, Va.	(a)	(a)	5,500	(a)	(a)	80,000	(a)
47	Nashville, Tenn.	60,000	20,000	80,000	(a)	(a)	(a)	20,000
48	Seattle, Wash.	1,800	(a)	1,800	(a)	(a)	(a)	3,700
49	Hartford, Conn.	(a)	(a)	(a)	120,400	15,363	135,763	2,500
50	Reading, Pa.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
51	Wilmington, Del.	(a)	(a)	(a)	(a)	(a)	(a)	75,800
52	Camden, N. J.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
53	Trenton, N. J.	(a)	(a)	4,000	(a)	(a)	35,000	(a)
54	Bridgeport, Conn.	(a)	(a)	(a)	(a)	(a)	97,991	(a)
55	Lynn, Mass.	(a)	(a)	6,000	118,000	10,169	128,169	(a)
56	Oakland, Cal.	(a)	(a)	(a)	(a)	(a)	(a)	55,000
57	Lawrence, Mass.	(a)	(a)	(a)	125,475	15,649	141,124	(a)
58	New Bedford, Mass.	(a)	(a)	(a)	98,035	9,826	107,861	52,000
59	Des Moines, Iowa	(a)	(a)	(a)	(a)	(a)	(a)	(a)
60	Springfield, Mass.	(r)	(r)	(r)	\$ 136,495	\$ 21,435	\$ 157,930	(a)
61	Somerville, Mass.	(a)	(a)	(a)	13,963	1,426	15,409	(a)
62	Troy, N. Y.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
63	Hoboken, N. J.	(a)	(a)	(a)	(a)	(a)	(a)	(a)
64	Evansville, Ind.	(a)	(a)	(a)	(a)	(a)	(a)	500,000
65	Manchester, N. H.	(a)	(a)	(a)	u 140,240	u 12,545	u 152,785	(a)

a Not reported.

b Not including libraries, ferries and bridges, and \$200,000 being expended in equipment of museums.

c Included in city hall.

d Including \$33,500,000 value of Cincinnati Southern Railroad.

e Included in parks.

f Included in ferries and bridges.

g Including docks and wharves.

h Distributing system only.

i Included in other assets.

j Not including apparatus, etc.

k Including apparatus, etc., for all departments.

TABLE XVIII.—ASSETS (3).

Ferries and bridges.	Markets.	Ceme-teries.	Bath houses and bathing beaches.	Water-works.	Gas works.	Electric-light plants.	Other.	Total assets.	Marginal number.
\$28,838,250	\$9,288,000	\$56,000	\$280,000	\$115,526,748			\$28,386,865	\$833,984,712	1
6,000,000			38,030	32,467,621		\$1,955,272	4,645,293	144,697,510	2
(a)	162,000	2,300	96,000	2,370,000	\$3,452,800		959,150	684,440,308	3
493,500	1,724,500	5,032,200	103,900	20,000,000			1,514,610	47,329,798	4
(a)	(a)	(a)		22,689,784			4,351,000	150,564,713	5
4,664,000	167,054	289,042	4,065	15,775,790			(a)		6
1,071,000	583,240	225,865	3,870	9,393,966			220,336	35,612,753	7
100,000				8,319,231			185,119	24,111,113	8
746,850	1,000,000			12,000,000			1,150,000	29,459,523	9
2,506,000	923,680			7,000,000			d38,125,593	68,195,406	10
25,000	1,000,000						202,998	29,186,539	11
375,000	293,000	63,000	(c)	6,061,110		813,803	36,400	13,935,642	12
g1,069,500	54,700	67,999		4,698,553			261,400	26,003,727	13
	113,383	65,000		h1,458,000				18,617,982	14
	500,000	15,500	25,000	7,436,719			502,400	9,722,829	15
			5,000	5,000,000			2,751,445	23,710,123	16
		750,000		7,000,000			1,071,635	18,612,330	17
		1,520,191		4,239,517			h7,067,674	16,863,828	18
888,000		3,000		3,235,290			2,528,497	25,995,805	19
	321,800			27,750			22,961	17,385,215	20
40,000	(a)	(a)		4,000,000			85,000	4,898,749	21
(a)				4,562,421				9,800,600	22
		350,000	16,000	7,300,000				18,000,000	23
	5,900			160,000			1,904,016	13,503,526	24
600,000	500,000	100,000		2,000,000	700,000		75,000	9,386,793	25
	400,000			3,324,211		535,882		9,324,764	26
651,451	96,400			2,363,693		68,553	2,427,905	12,978,837	27
	(l)		6,000	3,300,431	28,955		236,771	11,491,215	28
40,000			10,000	600,000			46,590	20,974,602	29
							374,337	4,904,608	30
							253,715	3,631,676	31
70,000	(m)	4,303		1,914,968			181,887	7,435,879	32
		5,000				90,980		1,472,801	33
								7,900,402	34
215,620	1,745	2,500		7,132,491			1,145,564	11,625,707	35
200,000	140,000						42,709	4,382,361	36
		1,512		4,324,608				2,873,165	37
			8,000	2,003,520			145,401	9,005,576	38
	250,000	62,500		5,649,016			35,817	8,413,787	39
350,000		5,000		5,000,000			519,813	11,813,925	40
				3,000,000			5,000	7,975,716	41
125,000	85,000	220,000	1,435,166				267,500	n6,002,442	42
517,000	(m)			1,500,000		186,254	18,000	5,311,768	43
	262,000	36,000		2,100,000			781,700	6,627,008	44
350,000	p350,000	75,000		2,000,000	1,000,000		242,783	7,650,845	45
32,150				1,399,676			75,000	4,055,393	46
		16,428	3,000	2,935,282			112,496	3,225,870	47
				1,838,600			47,488	7,263,976	48
	15,000	(e)		2,000,000			212,900	4,109,016	49
		20,000		2,500,000			1,000	3,888,673	50
				1,584,508			130,856	4,090,645	51
253,500								n3,965,756	52
		85,000		1,200,000			40,000	q3,050,269	53
							97,527	5,666,255	54
300,000		48,533		2,000,000			25,000	q2,051,101	55
		189,000	1,600	2,456,046				5,146,687	56
		50,000	1,200				133,431	5,499,453	57
			2,000	1,985,048		15,396	4,040	2,086,885	58
				h741,508			38,180	6,011,974	59
	25,000	55,000		540,000			166,053	3,354,681	60
		100,000	10,000	h150,000				2,213,810	61
		50,000		1,000,000			27,114	2,171,473	62
333,486	20,000	251,040		1,500,000			15,000	3,020,560	63
							945,877	5,659,283	64
									65

l Included in land and buildings for parks.

m Included in land and buildings for city hall.

n Not including uncollected taxes.

o Not including apparatus, etc., for police department.

p Including land for city hall.

q Not including hospitals.

r Included in asylums, almshouses, etc.

s Including hospitals.

t Pumping works and distributing system only.

u Including workhouses, reformatories, etc.

TABLE XVIII.—ASSETS (1)—Concluded.

Marginal number.	Cities.	Cash in treasury.	Uncollected taxes.	Cash and bonds in sinking fund.	City hall.		
					Land and buildings.	Apparatus, etc.	Total.
66	Utica, N. Y.	\$24,812	\$180,000		\$100,000	\$30,000	\$130,000
67	Peoria, Ill.	123,484		\$285,000	a 229,592	a 30,000	a 259,592
68	Charleston, S. C.	9,583	24,496	1,850	50,000	10,000	60,000
69	Savannah, Ga.	16,431	8,082		40,000	2,000	42,000
70	Salt Lake City, Utah.	80,101	42,389	109,274	c 940,000	60,000	c 1,000,000
71	San Antonio, Tex.		639,572	14,166	d 210,000	e 9,025	f 219,025
72	Duluth, Minn.	378,701	828,115	104,247	i 100,000	i 6,077	i 106,077
73	Erie, Pa.	54,705	27,746	166,990	j 125,000	7,550	j 132,550
74	Elizabeth, N. J.	110,979	138,908	14,619	d 45,000	e 5,000	f 50,000
75	Wilkesbarre, Pa.	91,170	19,432	9,007	180,000	10,000	160,000
76	Kansas City, Kans.	244,817	6,000	120,000	k 50,000	10,000	k 60,000
77	Harrisburg, Pa.	69,507	(l)	134,912		6,500	6,500
78	Portland, Me.	97,884	217,007	1,675,649	j 200,000	5,000	j 205,000
79	Yonkers, N. Y.	177,270	664,765	283,954	100,000	10,000	110,000
80	Norfolk, Va.	339,703	151,453	410,386	(m)	(m)	(m)
81	Waterbury, Conn.	55,389	41,268	543	170,000	5,000	175,000
82	Holyoke, Mass.	35,099	222,424	720,228	(l)	(l)	i 454,000
83	Fort Wayne, Ind.	169,952	30,000	6,599	f 90,000	i 5,000	i 95,000
84	Youngstown, Ohio	196,023	20,931			4,525	4,525
85	Houston, Tex.	65,243	220,000		n 200,000	n 25,000	n 225,000
86	Covington, Ky.	179,351	400,000	26,156	124,000	1,000	125,000
87	Akron, Ohio	214,216	138,907	58,351	d 50,000	1,000	d 51,000
88	Dallas, Tex.	169,886	325,000	157,772	d 109,500	e 3,322	f 112,922
89	Saginaw, Mich.	89,547	100,000	61,450	170,000	10,000	180,000
90	Lancaster, Pa.	30,212	12,083	540,458	30,000	1,500	31,500
91	Lincoln, Nebr.	70,470	514,596	44,787	d 25,000	5,000	d 30,000
92	Brockton, Mass.	65,353	302,229	306,129	352,000	15,000	367,000
93	Binghamton, N. Y.	138,042	7,000		j 180,000	10,000	j 190,000
94	Augusta, Ga.	13,037	27,882	5,831	j 12,000	5,000	j 17,000
95	Pawtucket, R. I.	44,487	27,588	372,326	30,976	23,665	54,641
96	Altoona, Pa.	47,435	30,740	91,291	101,100	4,800	105,900
97	Wheeling, W. Va.	30,542	32,911		95,000	5,000	100,000
98	Mobile, Ala.	6,880	35,000		(s)	2,690	h 2,690
99	Birmingham, Ala.	30,594	90,000		t 120,000	4,000	t 124,000
100	Little Rock, Ark.	1,075	121,338	16,655	d 25,000	2,000	d 27,000
101	Springfield, Ohio	82,035	221,164		u 225,000	15,000	u 240,000
102	Galveston, Tex.	18,246	458,597	892,000	(t)	(t)	i 153,000
103	Tacoma, Wash.	245,639	277,608	36,500	v 345,421	e 4,384	w 349,805
104	Haverhill, Mass.	25,000	167,891	458,317	110,000	6,000	116,000
105	Spokane, Wash.	135,179	550,699	61,821	x 103,000	7,051	x 110,051
106	Terre Haute, Ind.	102,703	59,094	27,482	a 28,000	a 4,500	a 32,500
107	Dubuque, Iowa	99,701	60,000	16,555	o 40,000	o 3,000	o 43,000
108	Quincy, Ill.	97,095	40,000	20,847	d 100,000	5,000	d 105,000
109	South Bend, Ind.	155,714	14,000	29,818			
110	Salem, Mass.	750	195,478	217,900	o 85,000	o 9,000	o 94,000
111	Johnstown, Pa.	38,782	17,001	71,444		5,000	5,000
112	Elmira, N. Y.	(y)	(y)		i 147,613	i 10,241	i 157,854
113	Allentown, Pa.	89,760	55,885	78,048	42,000	3,000	45,000
114	Davenport, Iowa	39,805	26,095		f 60,000	f 5,000	f 65,000
115	McKeesport, Pa.	88,026	46,713	205,516	5,000	15,000	20,000
116	Springfield, Ill.	53,230	60,000		(i)	(i)	r 75,000
117	Chelsea, Mass.	33,022	169,274	304,149	(i)	(i)	100,000
118	Malden, Mass.	25,393	182,633	227,726	44,000	5,000	49,000
119	Topeka, Kans.	287,129	125,000	7,965	(i)	(i)	42,945
120	Sioux City, Iowa	94,902	63,000	69,039	(aa)	20,000	h 20,000
121	Knoxville, Tenn.	33,353	29,825	20,254	j 30,500	1,000	j 31,500
122	Chattanooga, Tenn.	10,915	18,500	100,000	35,000	4,000	39,000
123	Superior, Wis.	176,036	648,320	256,382	(i)	(i)	(i)
124	Rockford, Ill.	7,527				2,369	2,369
125	Taunton, Mass.	70,377	40,090	324,067	70,000	10,000	80,000
126	Joliet, Ill.	124,929					
127	Canton, Ohio	152,429	69,680	34,263	b 38,000	2,000	b 40,000
128	Butte, Mont.	cc 136,068	cc 31,386	cc 53,064	d 59,300	e 700	f 60,000
129	Auburn, N. Y.	90,546			25,000	5,000	30,000

a Including police department and jails.

b Included in city hall.

c Including land and buildings for libraries.

d Including land and buildings for police department and jails.

e Including apparatus, etc., for jails.

f Including jails and land and buildings for police department.

g Included in land and buildings for city hall.

h Not including land and buildings.

i Including police department.

j Including land and buildings for police department.

k Including land and buildings for jails and workhouses, reformatories, etc.

l Not reported.

m Included in other assets.

n Including markets.

o Including jails.

TABLE XVIII.—ASSETS (1)—Concluded.

Police department.			Fire department.			Schools.			Marginal number.
Land and buildings.	Apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.	
\$30,000	\$10,000	\$40,000	\$61,700	\$91,895	\$153,595	\$629,600	\$36,250	\$665,850	66
(b)	(b)	(b)	108,000	83,150	191,150	750,000	30,000	780,000	67
50,000	10,000	60,000	45,000	86,071	131,071				68
50,000	13,000	63,000	51,500	117,485	168,985				69
40,000	5,000	45,000	125,000	40,000	165,000	1,008,147	55,324	1,063,471	70
(g)	1,363	h 1,363	37,800	31,611	69,411	307,300	12,435	319,735	71
(b)	(b)	(b)	189,700	100,584	240,284	1,744,325	56,268	1,800,593	72
(g)	7,390	h 7,390	56,100	79,042	135,142	733,900	44,500	778,400	73
(g)	1,500	h 1,500	49,500	51,000	100,500	275,000	30,000	305,000	74
5,000	6,500	10,500	80,515	47,372	127,887	525,000	30,000	555,000	75
20,000	3,500	23,500	31,100	24,183	55,283	485,000	15,000	500,000	76
	15,000	15,000	50,000	40,000	90,000	709,521	39,464	748,985	77
(g)	500	h 500	60,500	117,950	178,450	560,300	40,546	600,846	78
110,000	12,500	122,500	100,000	12,000	112,000	703,530	75,000	778,530	79
(m)	1,384	h 1,384	41,000	35,064	76,064	(l)	(l)	150,000	80
12,000	1,000	13,000	84,814	54,133	138,947				81
(b)	(b)	(b)	(l)	(l)	109,260	(l)	(l)	706,380	82
(b)	(b)	(b)	65,470	61,400	126,870	435,810	11,000	446,810	83
8,600	9,893	18,493	39,400	33,818	73,218	674,000	50,167	724,167	84
o 20,000	o 3,500	o 23,500	33,000	68,237	101,237	500,000	12,000	512,000	85
p 12,000		p 12,000	30,000	15,000	45,000	(l)	(l)	220,460	86
(g)	4,000	h 4,000	100,000	65,000	165,000	740,000	10,000	750,000	87
(g)	15,605	h 15,605	57,446	52,446	109,892	287,500	16,350	303,850	88
15,000	2,000	17,000	50,000	25,000	75,000	(l)	(l)	q 636,489	89
10,500	8,000	18,500	(l)	(l)	78,824	453,200	75,000	528,200	90
(g)	e 1,000	r 1,000	11,000	31,000	42,000	382,091	28,969	411,060	91
52,000	1,000	53,000	53,450	65,000	118,450	436,450	17,163	453,613	92
(g)	4,400	h 4,400	55,000	43,000	98,000	c 418,754	32,205	c 450,959	93
36,280	2,000	h 2,000	37,500	35,685	73,185				94
	12,440	h 12,440	91,594	60,004	151,598	560,096	33,686	593,782	95
1,000	6,400	h 6,400	33,125	33,575	66,700	480,000	20,000	500,000	96
o 25,000	1,500	h 1,500	40,000	20,000	60,000	500,000	15,000	515,000	97
(g)	o 1,690	o 26,690	26,000	9,250	35,250				98
(g)	5,750	h 5,750	41,000	44,274	85,274	q 245,000	q 15,000	q 260,000	99
(g)	2,000	h 2,000	5,500	25,000	30,500	306,311	27,437	333,748	100
(b)	200	h 200	66,000	36,550	102,550	375,000	75,000	450,000	101
(b)	(b)	(b)	60,000	62,000	112,000	516,000	30,000	546,000	102
7,188	6,000	13,188	66,613	89,494	174,107	710,548	51,371	761,919	103
o 2,300	o 5,150	o 7,450	77,360	67,925	135,285	521,800	24,500	546,300	104
(g)	1,404	h 1,404	62,371	48,725	111,096	613,452	43,078	656,530	105
(b)	(b)	(b)	67,333	39,685	107,018	485,482	8,889	494,371	106
3,000	500	h 3,500	59,184	40,920	100,104	360,000	12,000	372,000	107
(g)	1,000	h 1,000	40,000	86,500	76,500	278,000	15,000	293,000	108
	10,000	10,000	33,000	8,400	41,400	396,500	16,750	413,250	109
9,900	1,225	11,125	81,700	41,000	122,700	492,900	18,000	510,900	110
10,000	600	10,600				361,400	24,600	386,000	111
(b)	(b)	(b)	60,000	70,150	130,150	568,000	50,000	618,000	112
	408	408	59,500	55,650	115,150	669,533	15,000	674,533	113
(b)	(b)	(b)	23,275	26,650	49,925	460,000	5,300	465,300	114
20,000	15,000	35,000	25,000	15,000	40,000	(l)	(l)	424,000	115
(l)	(l)	(l)	(l)	(l)	70,800	359,200	22,000	381,200	116
	4,828	h 4,828	97,374	56,800	154,174	774,696	75,000	849,696	117
(l)	(l)	(l)	(l)	(l)	(l)	450,000	20,000	470,000	118
o 40,000	o 9,000	o 49,000	33,000	83,138	66,138	720,000	20,000	740,000	119
(g)	500	h 500	o 41,100	o 37,400	o 78,500	161,500	3,500	165,000	120
14,000	1,772	15,772	25,000	60,000	75,000	333,000	10,000	343,000	121
(l)	(l)	(l)	(l)	(l)	(l)	(l)	(l)	(l)	122
2,533	1,664	4,197	o 82,050	o 38,392	o 70,442	379,107	9,562	388,669	123
10,000	1,000	11,000	150,000	18,000	168,000	446,200	20,000	466,200	124
o 7,000	o 7,344	o 14,344	30,000	42,000	72,000	363,400	44,240	407,640	125
20,000	2,000	22,000	20,000	67,625	87,625	550,000	20,000	570,000	126
(g)	9,500	h 9,500	35,500	26,589	62,089	dd 437,350	dd 30,000	dd 467,350	127
	450	450	26,000	23,897	49,897	400,000	100,000	500,000	129

p Including jails and workhouses, reformatories, etc.

q Including libraries.

r Not including land and buildings, but including apparatus, etc., for jails.

s Included in markets.

t Including land and buildings for police department and land for jails.

u Including land and buildings for police department, and markets.

v Including land and buildings for libraries and jails.

w Including jails and land and buildings for libraries.

x Including land and buildings for police department and libraries.

y Not reported, on account of alleged defalcation.

z Including police department and land and buildings for libraries.

aa Included in land and buildings for libraries.

bb Including land and buildings for jails.

cc Including school district items.

dd Including schools in school district extending beyond city limits.

TABLE XVIII.—ASSETS (2)—Concluded.

Marginal number.	Cities.	Libraries.			Art galleries, museums, etc.		
		Land and buildings.	Books, apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.
66	Utica, N. Y.	\$30,000	\$40,000	\$70,000			
67	Peoria, Ill.	86,000	104,000	190,000			
68	Charleston, S. C.						
69	Savannah, Ga.						
70	Salt Lake City, Utah.	(b)	20,000	c 20,000			
71	San Antonio, Tex.						
72	Duluth, Minn.	16,000	43,196	59,196			
73	Erie, Pa.	c 144,000	21,000	e 165,000	(f)	\$5,000	c \$5,000
74	Elizabeth, N. J.						
75	Wilkesbarre, Pa.						
76	Kansas City, Kans.						
77	Harrisburg, Pa.						
78	Portland, Me.	91,000	26,413	117,413			
79	Yonkers, N. Y.		15,000	15,000			
80	Norfolk, Va.						
81	Waterbury, Conn.						
82	Holyoke, Mass.						
83	Fort Wayne, Ind.	17,000	9,787	26,787			
84	Youngstown, Ohio.						
85	Houston, Tex.						
86	Covington, Ky.						
87	Akron, Ohio.		15,000	15,000			
88	Dallas, Tex.						
89	Saginaw, Mich.	(k)	(k)	(k)			
90	Lancaster, Pa.						
91	Lincoln, Nebr.		8,000	8,000			
92	Brockton, Mass.		20,000	20,000			
93	Binghamton, N. Y.	(n)	15,000	c 15,000			
94	Augusta, Ga.						
95	Pawtucket, R. I.		27,091	27,091			
96	Altoona, Pa.						
97	Wheeling, W. Va.		26,600	26,600			
98	Mobile, Ala.						
99	Birmingham, Ala.	(k)	(k)	(k)			
100	Little Rock, Ark.						
101	Springfield, Ohio.	100,000	25,000	125,000			
102	Galveston, Tex.		5,000	5,000			
103	Tacoma, Wash.	(b)	15,000	c 15,000			
104	Haverhill, Mass.	60,000	30,000	90,000			
105	Spokane, Wash.	(b)	6,669	c 6,669			
106	Terre Haute, Ind.	6,000	25,000	31,000			
107	Dubuque, Iowa						
108	Quincy, Ill.						
109	South Bend, Ind.	43,500	22,000	65,500			
110	Salem, Mass.	44,756	41,000	85,756			
111	Johnstown, Pa.						
112	Elmira, N. Y.						
113	Allentown, Pa.						
114	Davenport, Iowa.						
115	McKeesport, Pa.						
116	Springfield, Ill.	(a)	50,000	c 50,000			
117	Chelsea, Mass.	46,000	15,000	61,000			
118	Malden, Mass.	125,000	175,000	300,000			
119	Topeka, Kans.	(d)	(d)	(d)			
120	Sioux City, Iowa.	r 80,000	9,000	r 89,000			
121	Knoxville, Tenn.						
122	Chattanooga, Tenn.						
123	Superior, Wis.	(d)	(d)	(d)	(d)	(d)	(d)
124	Rockford, Ill.		49,762	49,762			
125	Taunton, Mass.		23,800	23,800			
126	Joliet, Ill.		25,000	25,000			
127	Canton, Ohio.						
128	Butte, Mont.	96,000	45,000	140,000			
129	Auburn, N. Y.						

a Included in city hall.

b Included in land and buildings for city hall.

c Not including land and buildings.

d Not reported.

e Including land and buildings for art galleries, museums, etc.

f Included in land and buildings for libraries.

g Included in land and buildings for workhouses, reformatories, etc.

h Including land and buildings for jails.

i Included in other assets.

j Included in police department.

TABLE XVIII.—ASSETS (2)—Concluded.

Parks.			Jails.			Workhouses, reformatories, etc.			Marginal number.
Land and buildings.	Apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.	Land and buildings.	Apparatus, etc.	Total.	
\$25,000		\$25,000							66
530,000	\$50,500	580,500	(a)	(a)	(a)	\$40,000	\$13,100	\$53,100	67
295,000	5,000	300,000							68
500,000		500,000							69
1,000,000	2,000	1,002,000	\$6,000	\$500	\$6,500				70
377,500	500	378,000	(a)	(a)	(a)				71
(d)	(d)	477,676							72
701,700	1,580	703,280							73
114,000		114,000	(a)	(a)	(a)				74
460,000		460,000							75
150,000		150,000	(b)	200	c 200	(b)	500	c 500	76
18,000	500	18,500							77
350,000	1,500	351,500	(g)	(g)	(g)	h 38,000	7,000	h 45,000	78
(d)	(d)	151,119	(d)	(d)	9,000				79
(i)	(i)	(i)	(f)	(f)	(f)				80
48,000	2,000	50,000							81
(d)	(d)	155,810							82
93,850	500	94,350							83
48,000	500	48,500							84
30,000		30,000	(j)	(j)	(j)				85
			(j)		(j)	(j)		(j)	86
175,000	250	175,250	(b)	25	c 25				87
83,750	990	34,740	(a)	(a)	(a)				88
(d)	(d)	25,000							89
			(b)	(f)	(m)				90
(d)	(d)	25,000							91
27,400		27,400							92
12,000	1,000	13,000							93
1,000	1,000	2,000							94
97,100	455	97,555							95
						200		200	96
75,000		75,000	(j)	(j)	(j)				97
447,625		447,625	o 25,000		p 25,000				98
190,000	21,000	211,000	(b)		(b)				99
800,000	1,000	801,000							100
50,000	100	50,100	3,500	200	3,700				101
(d)	(d)	194,000							102
(d)	(d)	836,983	(a)	(a)	(a)				103
190,345	2,897	193,242	(j)	(j)	(j)	(q)	(q)	(q)	104
96,775	476	97,251	22,000	16,150	38,150				105
28,000		28,000	(a)	(a)	(a)				106
150,000	1,000	151,000	(a)	(a)	(a)				107
215,000	5,000	220,000	(b)		(b)	50,000	5,000	55,000	108
19,500	500	20,000							109
201,300	1,522	202,822	(a)	(a)	(a)	(q)	(q)	(q)	110
80,000		80,000							111
51,000	2,000	53,000							112
									113
70,000	3,000	73,000	4,000	1,000	5,000				114
20,000		20,000							115
(d)	(d)	12,500	(d)	(d)	24,000				116
(d)	(d)	231,400							117
196,866		196,866							118
(d)	(d)	(d)	(d)	(d)	(d)				119
(d)	(d)	8,500	(j)	(j)	(j)				120
			(s)	(s)	(s)				121
110,000	5,000	115,000	6,000	170	6,170	(d)	(d)	(d)	122
(d)	(d)	(d)	(s)	(s)	(s)				123
20,000		20,000							124
71,500		71,500							125
100,000		100,000	(j)	(j)	(j)				126
51,500	300	51,800	(b)	500	c 500				127
			(a)	(a)	(a)				128
8,000		8,000							129

k Included in schools.

l Included in apparatus, etc., for police department.

m Included in city hall and police department.

n Included in land and buildings for schools.

o Building only; land included in land and buildings for city hall.

p Not including land.

q Included in asylums, almshouses, etc.

r Including land and buildings for city hall.

s Included in fire department.

TABLE XVIII.—ASSETS (3)—Concluded.

Marginal number.	Cities.	Hospitals.			Asylums, almshouses, etc.			Docks and wharves.
		Land and build-ings.	Appara-tus, etc.	Total.	Land and build-ings.	Appara-tus, etc.	Total.	
66	Utica, N. Y.....	\$27,000	\$18,000	\$45,000				
67	Peoria, Ill.....							
68	Charleston, S. C.....	107,534	7,466	115,000	\$200,000	\$9,444	\$209,444	
69	Savannah, Ga.....							\$10,000
70	Salt Lake City, Utah..	(b)	(b)	2,000				
71	San Antonio, Tex.....	61,000	5,528	66,528				
72	Duluth, Minn.....							5,000
73	Erie, Pa.....							100,000
74	Elizabeth, N. J.....	5,500	500	6,000	15,000	3,000	18,000	
75	Wilkesbarre, Pa.....							
76	Kansas City, Kans.....							
77	Harrisburg, Pa.....							
78	Portland, Me.....	5,000	3,000	8,000	30,000	3,000	33,000	
79	Yonkers, N. Y.....	30,000	1,000	31,000				150,000
80	Norfolk, Va.....	(c)	(c)	(c)	(c)	(c)	(c)	(c)
81	Waterbury, Conn.....							
82	Holyoke, Mass.....	(b)	(b)	5,700	(b)	(b)	37,830	
83	Fort Wayne, Ind.....							
84	Youngstown, Ohio.....	1,200	250	1,450				
85	Houston, Tex.....							
86	Covington, Ky.....	7,000		7,000				2,000
87	Akron, Ohio.....							
88	Dallas, Tex.....	20,346	9,401	29,747				5,000
89	Saginaw, Mich.....							
90	Lancaster, Pa.....							
91	Lincoln, Nebr.....							
92	Brockton, Mass.....				24,475	3,375	27,850	
93	Binghamton, N. Y.....	30,000	5,000	35,000				
94	Augusta, Ga.....	42,000	6,000	48,000				12,000
95	Pawtucket, R. I.....				15,012	4,660	19,672	
96	Altoona, Pa.....							
97	Wheeling, W. Va.....	2,000		2,000				15,000
98	Mobile, Ala.....	40,000		40,000				
99	Birmingham, Ala.....							
100	Little Rock, Ark.....	25,000	5,000	30,000				
101	Springfield, Ohio.....	25,000	3,000	28,000				
102	Galveston, Tex.....	(b)	(b)	500,000				538,700
103	Tacoma, Wash.....	1,500		1,500				31,463
104	Haverhill, Mass.....				f 41,300	f 14,480	f 55,780	
105	Spokane, Wash.....	1,500	463	1,963				
106	Terre Haute, Ind.....							
107	Dubuque, Iowa.....							230,000
108	Quincy, Ill.....							
109	South Bend, Ind.....							
110	Salem, Mass.....				f 135,000	f 7,197	f 142,197	
111	Johnstown, Pa.....							
112	Elmira, N. Y.....							
113	Allentown, Pa.....							
114	Davenport, Iowa.....							40,000
115	McKeesport, Pa.....							
116	Springfield, Ill.....							
117	Chelsea, Mass.....							
118	Malden, Mass.....				28,600	5,949	34,549	
119	Topeka, Kans.....							
120	Sioux City, Iowa.....							
121	Knoxville, Tenn.....	7,500	450	7,950				
122	Chattanooga, Tenn.....	43,000	10,000	53,000				
123	Superior, Wis.....	(b)	(b)	(b)	(b)	(b)	(b)	(b)
124	Rockford, Ill.....	1,335		1,335				
125	Taunton, Mass.....				38,700	6,000	44,700	
126	Joliet, Ill.....							
127	Canton, Ohio.....	500	150	650				
128	Butte, Mont.....							
129	Auburn, N. Y.....							

a Including \$300,000, city's interest in private high schools and colleges.

b Not reported.

c Included in other assets.

d Including ferries and bridges.

e Not including uncollected taxes.

f Including city hall, parks, jails, hospitals, asylums, almshouses, etc., docks and wharves, markets, cemeteries, and land and buildings for police department.

TABLE XVIII.—ASSETS (3)—Concluded.

Ferries and bridges.	Markets.	Ceme-teries.	Bath houses and bathing beaches.	Water-works.	Gas works.	Electric-light plants.	Other.	Total assets.	Marginal number.
\$100,000							\$10,000	\$1,333,757	66
\$20,000							a 369,056	a 1,300,000	67
125,000		\$60,000		\$1,031,849			137,120	2,162,467	68
		5,000	\$75,000	3,000,000			3,000,000	9,615,735	69
150,000	27,500	12,500		1,900,000	\$456,000		68,521	1,966,321	70
(c)	37,500			2,500,000			49,359	5,942,748	71
							d 130,938	4,907,141	72
		50,000					64,567	924,073	73
365,000		40,000					21,403	1,504,399	74
225,900		6,000		2,000,000				1,564,800	75
65,000	(c)	(c)		1,549,078				e 3,083,404	76
				1,282,431			f 555,566	3,762,149	77
				1,000,000			50,000	4,154,216	78
				1,147,303				3,031,917	79
	15,000			1,500,000				1,524,147	80
	13,000			970,000				3,594,034	81
	(g)	10,000					13,350	2,524,718	82
138,000	6,000			1,200,000			29,771	2,100,078	83
75,000								1,324,980	84
300,000	8,000	60,000		998,874			155,000	2,452,967	85
4,596				900,000			5,000	1,876,749	86
125,000	135,000	65,000		868,000			8,450	2,271,334	87
		23,500		385,490			20,750	2,303,236	88
				890,462			13,500	2,256,277	89
260,000		3,000		2,000,000			500	1,597,873	90
100,000		10,000		750,000			181,437	2,836,423	91
		86,800		1,820,537				3,207,401	92
				1,300,150			1,404,353	2,465,290	93
250,000	100,000	15,500		500,000	250,000	\$100,000	53,976	3,398,773	94
h 103,515	25,000	60,000		523,479		1,000		2,148,616	95
82,685		22,000						2,103,753	96
		10,000					22,953	1,236,629	97
230,000	(f)			675,184		36,000		1,022,256	98
				1,554,455				1,421,316	99
531,063	2,834	8,325		1,204,830		65,000		2,223,933	100
150,000				1,260,000		450,000		5,060,998	101
312,300		36,225		939,837			271,173	4,793,622	102
							83,511	3,291,581	103
							107,357	3,115,307	104
							40,100	942,593	105
							4,000	849,960	106
	12,000	110,000		379,778			20,000	1,280,442	107
	52,400	79,400		1,500,000				1,129,460	108
							30,700	3,246,122	109
220,000		75,000		371,500			48,000	656,827	110
20,000		10,000						k 1,254,004	111
				500,000				1,430,284	112
		35,000		1,015,000		8,059		794,125	113
		25,000		400,000		6,800		1,387,314	114
				1,040,805				1,783,530	115
		15,000		450,714		68,458		2,054,645	116
300,000	107,000					(b)	132,750	3,223,420	117
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	118
159,490		42,300	1,500	629,062	121,599	23,490	41,750	1,707,043	119
160,000				1,219,559	149,640	48,220	36,071	809,953	120
				325,000				776,357	121
	31,000			600,000				(b)	122
		18,000		529,366				(b)	123
								(b)	124
								(b)	125
								(b)	126
								(b)	127
								(b)	128
								(b)	129

g Included in city hall.

h Including land and buildings for city hall.

i Included in land and buildings for city hall.

j Including workhouses, reformatories, etc.

k Not including cash in treasury and uncollected taxes.

l Pole line only.

TABLE XIX.—PER CAPITA DEBT, ASSESSED VALUATION OF PROPERTY, AND EXPENDITURES FOR MAINTENANCE.

Marginal number.	Cities.	Net debt.	Assessed valuation of real and personal property.	Expenditures for maintenance.						Total.
				Police department, including police courts, jails, work-houses, reformatories, etc.	Fire department.	Schools.	Street lighting.	Other street expenditures.	All other purposes.	
1	New York, N. Y.	a \$78.21	\$51,011.97	\$3.61	\$1.33	\$3.73	\$0.38	\$2.10	\$12.77	\$23.92
2	Chicago, Ill. (c)	17.17	203.23	2.30	.97	4.14	.31	.51	3.89	11.62
3	Philadelphia, Pa.	81.86	680.94	2.68	.76	2.64	.88	1.03	6.88	14.87
4	St. Louis, Mo.	33.21	649.06	2.64	1.26	2.56	.73	1.52	7.28	15.84
5	Boston, Mass.	d 105.72	1,942.86	e 5.16	2.12	4.94	1.21	2.59	f 19.21	g 35.23
6	Baltimore, Md.	64.70	762.82	2.12	.96	2.64	.78	.98	6.51	13.99
7	Cleveland, Ohio.	82.04	880.00	1.21	1.16	2.81	.60	.38	7.74	13.90
8	Buffalo, N. Y.	40.27	697.51	2.47	1.71	3.12	.97	.84	6.68	15.69
9	San Francisco, Cal.	13.02	1,027.90	2.85	2.51	3.33	.83	.91	11.50	h 21.93
10	Cincinnati, Ohio.	83.65	616.20	2.13	1.85	2.77	1.06	.89	10.63	18.82
11	Pittsburg, Pa.	86.98	986.19	1.45	1.39	2.88	.86	1.38	7.44	15.40
12	New Orleans, La.	50.70	491.11	1.02	1.06	1.39	.77	.90	7.64	12.77
13	Detroit, Mich.	16.13	759.43	2.09	1.75	2.63	(i)	2.16	5.80	14.43
14	Milwaukee, Wis.	22.25	532.65	1.19	1.39	2.35	.69	.90	5.85	12.37
15	Washington, D. C.	64.44	705.33	2.93	.83	3.83	.75	1.39	12.41	22.14
16	Newark, N. J.	50.53	591.94	1.63	1.12	3.28	.84	.46	11.62	18.85
17	Jersey City, N. J.	81.14	445.77	1.86	1.08	2.21	.62	j 1.11	k 16.14	22.97
18	Louisville, Ky.	43.98	654.65	1.98	1.16	2.59	.65	.75	5.51	12.64
19	Minneapolis, Minn.	32.95	526.49	1.18	1.56	3.33	.80	1.18	m 5.05	13.28
20	Providence, R. I.	81.68	1,073.49	2.05	1.99	3.77	1.72	1.47	11.66	22.66
21	Indianapolis, Ind.	18.29	728.85	.91	1.04	4.77	.67	.68	3.62	11.59
22	Kansas City, Mo.	28.00	433.96	1.23	1.30	2.71	.46	(n)	o 6.06	11.76
23	St. Paul, Minn.	45.88	673.82	1.28	1.22	2.62	.73	1.10	6.45	13.40
24	Rochester, N. Y.	61.58	579.85	1.14	1.48	3.64	1.44	1.85	7.68	17.23
25	Denver, Colo.	p 19.66	464.69	.97	1.03	4.87	.54	.83	4.30	12.54
26	Toledo, Ohio.	43.56	392.81	1.05	1.01	2.54	.59	.71	6.22	12.12
27	Allegheny, Pa.	43.28	645.22	1.05	.98	2.66	.63	.93	7.57	13.82
28	Columbus, Ohio.	48.26	512.46	1.24	1.57	3.18	.60	.66	5.91	13.06
29	Worcester, Mass.	45.16	948.62	1.34	1.32	4.64	.93	2.32	12.32	22.87
30	Syracuse, N. Y.	68.09	745.19	.78	1.31	3.58	.80	1.10	8.58	16.10
31	New Haven, Conn.	81.12	622.28	1.85	1.20	3.43	.72	1.04	8.35	11.59
32	Paterson, N. J.	32.67	452.36	1.10	1.35	2.68	.79	.68	7.81	14.31
33	Fall River, Mass.	35.17	682.81	1.25	1.10	3.00	.87	1.08	7.86	15.16
34	St. Joseph, Mo.	14.12	212.81	.59	.49	1.20	(i)	1.86	m 2.28	4.87
35	Omaha, Nebr.	56.26	340.38	.81	1.15	4.50	.78	.76	5.87	13.87
36	Los Angeles, Cal.	15.54	640.86	1.19	.93	5.23	.49	1.67	4.59	h 14.00
37	Memphis, Tenn.	29.54	369.32	.83	.71	q .97	.37	.40	3.30	6.58
38	Scranton, Pa.	8.37	212.89	.56	.48	2.78	.44	.61	1.69	6.45
39	Lowell, Mass.	34.84	750.30	1.30	1.25	2.87	.88	1.86	9.79	17.95
40	Albany, N. Y.	35.45	709.94	1.73	1.58	3.01	.92	.90	6.91	15.06
41	Cambridge, Mass.	65.58	996.26	1.27	.93	4.49	.78	1.66	11.02	20.15
42	Portland, Oreg.	61.81	427.81	.76	.95	2.76	.55	.45	5.17	10.64
43	Atlanta, Ga.	31.25	581.27	1.58	1.17	1.63	.83	r .86	s 9.64	15.71
44	Grand Rapids, Mich.	22.28	317.15	1.02	1.36	2.95	.43	.54	t 6.92	13.22
45	Dayton, Ohio.	41.75	498.81	.85	.87	3.33	.61	.86	5.64	11.66
46	Richmond, Va.	80.62	817.79	1.28	1.05	1.44	.36	u 1.02	v 9.42	14.57

a Not including \$0.16 not yet approved and \$1 11 in litigation.

b Including \$0.27 liable for taxes for State purposes only and \$25.03 exempt from local taxes for State purposes.

c Not including data relating to sanitary district of Chicago.

d Including \$5.32 of county debt.

e Including \$1.93 expended by county.

f Including \$0.19 expended by county.

g Including \$2.12 expended by county.

h Including unpaid warrants which can not be traced to the various items of expenditure.

i Electric-light plant operated by city.

j Including expenditures for garbage removal.

k Expenditures for garbage removal included in other street expenditures.

l Including expenditures for sewers.

m Expenditures for sewers included in other street expenditures.

n Expenditures for street cleaning and sprinkling included in expenditures for all other purposes; other expenditures for streets paid for by property owners.

o Including expenditures for street cleaning and sprinkling; expenditures for sewers paid for by property owners.

p Not including special assessment bonds and warrants and accrued interest on bonds.

q Not including expenditures for schools in territory annexed during year.

r Expenditures for street cleaning and sprinkling included in expenditures for all other purposes.

s Including expenditures for street cleaning and sprinkling.

t Including \$1.56 State and county tax.

u Expenditures for removal of ashes.

v Expenditures for removal of ashes included in other street expenditures.

TABLE XIX.—PER CAPITA DEBT, ASSESSED VALUATION OF PROPERTY, AND EXPENDITURES FOR MAINTENANCE—Continued.

Marginal number.	Cities.	Net debt.	Assessed valuation of real and personal property.	Expenditures for maintenance.						Total.
				Police department, including police courts, jails, workhouses, reformatories, etc.	Fire department.	Schools.	Street lighting.	Other street expenditures.	All other purposes.	
47	Nashville, Tenn.	\$42.21	\$450.50	\$1.12	\$1.09	\$2.07	\$0.50	\$2.13	\$4.29	\$11.25
48	Seattle, Wash.	c56.66	398.70	.79	.97	2.62	.26	.32	5.17	10.13
49	Hartford, Conn.	47.61	862.15	1.64	1.28	3.95	.69	1.12	6.35	15.03
50	Reading, Pa.	17.87	550.66	.52	.40	2.26	.70	.34	2.86	6.58
51	Wilmington, Del.	26.48	d522.82	1.09	.48	2.08	.60	.46	8.55	8.26
52	Camden, N. J.	32.31	348.98	1.11	.71	2.27	1.00	a.54	b 6.99	12.66
53	Trenton, N. J.	35.05	420.64	1.02	.95	2.20	.35	.54	12.00	17.06
54	Bridgeport, Conn.	18.31	866.88	.94	.90	2.88	.75	1.27	4.40	10.64
55	Lynn, Mass.	53.64	745.73	1.18	1.28	8.69	.79	1.51	e10.56	19.01
56	Oakland, Cal.	7.24	633.09	1.06	1.47	4.16	.98	1.29	3.00	11.96
57	Lawrence, Mass.	23.79	617.25	.87	.78	2.72	.50	1.21	12.24	18.32
58	New Bedford, Mass.	49.35	898.55	1.88	1.25	8.44	.78	1.46	9.32	18.13
59	Des Moines, Iowa	f12.42	230.53	.69	1.05	4.25	.64	.13	4.20	10.96
60	Springfield, Mass.	32.80	1,125.88	1.02	1.49	5.09	.95	2.07	9.00	19.62
61	Somerville, Mass.	29.24	831.60	.96	.97	4.25	.80	1.30	7.71	15.99
62	Troy, N. Y. (g)	24.72	785.19	1.40	.80	2.83	.82	a1.90	b 4.75	12.05
63	Hoboken, N. J.	25.37	472.48	1.94	1.27	2.93	.31	.25	5.88	12.58
64	Evansville, Ind.	36.35	429.96	.87	.93	2.90	.58	.34	4.67	10.29
65	Manchester, N. H.	29.95	552.61	h.78	1.48	2.14	.98	.91	f6.43	12.72
66	Utica, N. Y.	6.10	666.45	j.44	1.40	2.71	1.08	.44	k3.49	9.56
67	Peoria, Ill.	12.04	143.38	1.21	1.12	3.08	.76	1.07	2.89	10.13
68	Charleston, S. C.	68.06	309.88	1.35	.86	1.14	.54	.62	5.89	9.40
69	Savannah, Ga.	59.69	674.41	1.63	1.31	(m)	.72	1.88	7.07	12.61
70	Salt Lake City, Utah.	63.80	573.32	.78	.63	4.12	.56	1.37	6.42	13.87
71	San Antonio, Tex.	41.55	592.68	.78	.78	1.85	.64	.58	3.40	8.03
72	Duluth, Minn.	113.47	493.86	.90	1.41	3.68	.61	.80	11.52	18.92
73	Erie, Pa.	14.78	365.97	.59	.97	2.68	.69	.49	2.87	8.14
74	Elizabeth, N. J.	62.03	328.99	.96	.44	2.04	.43	n.38	o 8.72	12.97
75	Wilkesbarre, Pa.	11.46	347.54	.60	.62	2.54	.58	.69	2.77	7.80
76	Kansas City, Kans.	34.25	119.39	(p)	(p)	(p)	(p)	(p)	(p)	(p)
77	Harrisburg, Pa.	25.17	610.65	.67	.81	2.84	.64	.69	8.22	8.37
78	Portland, Me.	26.25	890.04	1.13	1.41	2.82	.91	1.40	14.20	21.37
79	Yonkers, N. Y.	68.25	763.67	1.62	.52	4.39	1.54	1.09	13.57	22.73
80	Norfolk, Va.	80.66	560.24	q1.20	.84	.97	q.43	r1.01	s11.89	16.34
81	Waterbury, Conn.	t19.72	260.30	.93	.69	3.69	.46	.36	2.19	8.22
82	Holyoke, Mass.	34.21	823.87	1.04	1.66	3.77	.60	.78	9.16	16.91
83	Fort Wayne, Ind.	13.91	523.64	.64	1.05	2.21	.65	.41	2.98	7.94
84	Youngstown, Ohio.	14.82	322.02	.80	.67	2.84	.52	.38	2.72	7.93
85	Houston, Tex.	54.88	576.95	1.31	1.44	3.10	.45	1.76	4.92	12.96
86	Covington, Ky.	51.13	499.99	.93	.71	2.12	.37	.73	4.61	9.47

a Including expenditures for garbage removal.

b Expenditures for garbage removal included in other street expenditures.

c Not including \$5.49 local improvement bonds and warrants.

d Not including personal property.

e Including State and county tax.

f Not including school debt.

g Data are for 10 months.

h Expenditures for workhouses included in expenditures for all other purposes.

i Including expenditures for workhouses and \$2.34 State and county tax.

j Expenditures for police courts, jails, workhouses, reformatories, etc., included in expenditures for all other purposes.

k Including expenditures for police courts, jails, workhouses, reformatories, etc.

l Not including \$1.17 expended by State and county.

m Supported by State and county.

n Including expenditures for parks and gardens.

o Expenditures for parks and gardens included in other street expenditures.

p Not reported.

q Expenditures for Brambleton and Atlantic City wards included in expenditures for all other purposes.

r Including expenditures for garbage removal; expenditures for Brambleton and Atlantic City wards included in expenditures for all other purposes.

s Including \$1.76 expended for various purposes in Brambleton and Atlantic City wards, which amount can not be traced to the various items of expenditure; expenditures for garbage removal included in other street expenditures.

t Not including debt of center school district.

TABLE XIX.—PER CAPITA DEBT, ASSESSED VALUATION OF PROPERTY, AND EXPENDITURES FOR MAINTENANCE—Concluded.

Marginal number.	Cities.	Net debt.	Assessed valuation of real and personal property.	Expenditures for maintenance.						
				Police department, including police courts, jails, work-houses, reformatories, etc.	Fire department.	Schools.	Street lighting.	Other street expenditures.	All other purposes.	Total.
87	Akron, Ohio	\$11.19	\$401.69	\$0.74	\$1.26	\$3.13	\$0.77	\$1.13	\$3.32	\$10.35
88	Dallas, Tex.	39.67	520.66	1.03	.89	2.09	.54	1.10	4.84	10.49
89	Saginaw, Mich.	30.59	352.74	.78	.70	3.99	.57	1.17	6.3.76	10.97
90	Leicester, Pa.	18.49	383.77	.53	.48	2.17	.74	.57	2.76	7.25
91	Lincoln, Nebr.	42.75	118.94	.48	.68	2.47	.45	1.70	5.25	11.03
92	Brookton, Mass.	42.99	687.88	1.03	1.38	3.46	.71	4.21	7.78	18.57
93	Binghamton, N. Y.	15.27	532.49	.74	.70	3.28	1.00	.88	3.72	10.32
94	Augusta, Ga.	48.08	476.16	1.50	1.21	(c)	.59	.22	5.27	8.79
95	Pawtucket, R. I.	108.36	855.70	1.20	1.07	3.00	.78	1.34	12.48	19.57
96	Altoona, Pa.	26.55	409.52	.52	.55	2.26	.41	.30	3.26	7.30
97	Wheeling, W. Va.	13.61	611.03	.86	.77	2.17	(d)	.31	5.73	9.84
98	Mobile, Ala.	e 20.15	410.80	1.01	.58	(c)	.45	.64	g 2.13	4.81
99	Birmingham, Ala.	48.32	403.49	1.11	1.17	h .80	.48	11.21	3.12	7.99
100	Little Rock, Ark.	5.35	329.35	.82	1.06	1.70	(d)	j .18	1.58	5.28
101	Springfield, Ohio	k 22.32	445.92	.79	.65	2.55	.71	.64	3.72	9.06
102	Galveston, Tex.	75.18	708.60	1.68	1.59	1.42	(d)	1.58	12.38	18.60
103	Tacoma, Wash.	115.74	597.65	.91	1.16	3.40	(d)	.59	9.74	15.80
104	Haverhill, Mass.	39.94	688.75	.87	1.47	3.34	.90	1.99	9.08	17.65
105	Spokane, Wash.	75.12	512.30	.84	1.67	1.93	.26	.43	6.61	11.74
106	Terre Haute, Ind. (m)	10.40	576.56	.89	.79	3.87	.47	1.14	2.96	10.12
107	Dubuque, Iowa	29.23	659.60	.77	.88	2.45	.65	1.16	4.43	10.54
108	Quincy, Ill.	31.68	127.45	.75	.75	1.93	.49	.37	2.65	6.94
109	South Bend, Ind.	n 7.68	400.87	.52	.82	1.90	.48	.50	2.91	7.13
110	Salem, Mass.	o 28.02	785.18	1.05	.90	3.59	1.16	1.67	8.93	17.30
111	Johnstown, Pa.	10.62	381.51	.49	.27	2.31	.46	.45	1.52	5.50
112	Elmira, N. Y.	28.27	483.35	(p)	(p)	(p)	(p)	(p)	(p)	(p)
113	Allentown, Pa.	17.36	571.15	.30	.41	2.68	.58	.44	2.81	7.22
114	Davenport, Iowa	9.18	395.76	.66	.82	3.51	.67	1.21	3.83	10.70
115	McKeesport, Pa.	14.13	460.16	.80	.79	2.64	.50	.42	2.74	7.89
116	Springfield, Ill.	30.92	184.75	.92	1.14	2.77	1.01	.50	4.01	10.35
117	Chelsea, Mass.	37.86	686.94	1.03	.94	3.55	.79	1.13	6.85	14.29
118	Malden, Mass.	45.94	794.99	.94	.99	5.11	.86	1.60	11.08	20.58
119	Topeka, Kans.	17.29	264.45	.62	.84	2.99	(d)	1.07	3.14	8.66
120	Sioux City, Iowa	57.21	175.87	.60	.67	3.36	.42	.55	6.88	12.48
121	Knoxville, Tenn.	43.03	331.30	.66	.73	1.57	.74	.66	3.59	7.96
122	Chattanooga, Tenn.	26.29	438.60	1.00	1.04	1.36	.46	.41	3.79	8.06
123	Superior, Wis.	43.62	341.07	.79	.99	3.51	.41	.71	4.36	10.77
124	Rockford, Ill.	17.61	203.47	.53	.75	3.00	.65	1.74	2.96	9.63
125	Taunton, Mass.	43.32	661.11	1.22	.86	3.37	.28	1.48	9.65	16.76
126	Joliet, Ill.	5.92	101.58	.87	.83	2.63	1.02	.82	3.61	9.78
127	Canton, Ohio	29.36	378.90	.65	.88	3.36	.74	.94	3.66	10.23
128	Butte, Mont.	q 18.27	514.49	1.95	1.71	r 5.67	.62	1.61	5.44	17.00
129	Auburn, N. Y.	24.34	453.65	.58	.71	2.52	.82	.26	3.08	7.92

a Including expenditures for sewers and docks, wharves, etc.

b Expenditures for sewers and docks, wharves, etc., included in other street expenditures.

c Supported by State and county.

d Electric-light plant operated by city.

e Not including \$58.61 assumed by State on reorganization of city.

f Including expenditures for garbage removal; streets cleaned by chain gang; no sprinkling done by city.

g Expenditures for garbage removal included in other street expenditures.

h Not including \$0.45 expended by State and county.

i For cleaning only; sprinkling paid for by property owners.

j Streets cleaned by chain gang.

k Including \$0.91 temporary loan bonds.

l Not including \$1.94 local improvement bonds.

m Data are for 8½ months.

n Not including \$10.25 street and sewer improvement bonds held against private property.

o Including \$3.06 of trust funds.

p Not reported, on account of alleged defalcation.

q Including debt of school district extending beyond city limits.

r Including expenditures for school district extending beyond city limits.

s Including expenditures for school district extending beyond city limits and unpaid warrants which can not be traced to the various items of expenditure.

FOREIGN LABOR LAWS. (a)

BY W. F. WILLOUGHBY.

RUSSIA.

Though Russia has only within a comparatively recent date entered the ranks of the important industrial nations, it is of interest to note that not only has the elaboration of a systematic industrial code reached an advanced stage, but in more than one respect the beginnings of this legislation antedate those of any of her more industrial neighbors.

Russia was thus the first nation to appreciate the necessity for a special corps of inspectors to control methods of work in factories. The appointment of such officials was directed by an imperial decree issued at the early date of 1719. This same decree contained the germ of factory legislation by stipulating that workmen should be honestly paid for their work and properly taken care of.

In 1763 further measures were promulgated to prevent work being imposed upon workmen beyond their strength, and to prevent the employment of workmen in factories and workshops to the detriment of their agricultural work. In the following year, 1764, the hours of labor in factories and mills belonging to the Crown were limited to 12 per day. In 1803 the employment of children under 10 and workmen over 50 years of age was prohibited. The principle of a weekly rest day in all Government establishments was established

^aIn Bulletin Nos. 25, 26, 27, and 28 detailed accounts have been given of the laws of Great Britain, France, Belgium, Switzerland, Germany, and Austria in relation to the right of association and coalition, the labor and apprenticeship contract, labor in factories and workshops, arbitration and conciliation of industrial disputes, and the organization of bureaus of statistics of labor. It is neither desirable nor practicable to attempt a similarly comprehensive statement of the laws of the remaining European countries. In the present chapter, therefore, the effort has in general been made to present only an account of the laws of these countries in relation to the employment of women and children, the regulation of hours of labor, the protection of health and the prevention of accidents, etc., in factories and workshops. The chief departures from this field are in the case of Russia, which has recently evolved a fairly complete labor code, thus permitting of a statement of the law regarding the labor contract and related subjects, and in the case of the Netherlands, where an account has been given of the recent law providing for the constitution of councils of labor and industry patterned after the Belgian councils that have been described.

by law about the same time. In addition to these general decrees the different departments of the Government issued orders regarding the hours of labor, intervals of rest, etc., of employees in works coming under their jurisdiction.

Although all of these provisions that have been cited apply only to Government establishments, they were to all intents general regulations, since at that time industrial work was almost wholly in the hands of the Government.

It is unnecessary to follow in detail the subsequent elaboration of these regulations during the period prior to 1861, when the emancipation of the serfs was accomplished. The age at which children could be employed in factories was raised to 12 years, and the hours of labor of children from 12 to 15 years of age were variously limited in different Government departments. The year 1861 marks the beginning of a new epoch, not only on account of the enfranchisement act of that year, but because following that act the Government earnestly took up the regulation of the relations between employers and employees in private as well as public enterprises.

Prior to this date, or in 1859, in consequence of the great number of accidents in factories, especially among children, there was appointed a commission to assist the governor-general of St. Petersburg in an investigation of all the factories of that city and district. This inquiry brought out clearly the necessity for legislative action, and a bill was prepared prohibiting the employment of children under 12 years of age, restricting the hours of labor of those from 12 to 14 years of age, regulating night work, etc.

In the same year a commission organized under the ministry of finance, as the result of an independent investigation of labor conditions in factories, came to the same conclusions as the St. Petersburg commission as regards conditions, but formulated a more radical measure for their improvement. It provided that children under 12 years of age should not be employed, that the hours of labor of children from 12 to 16 years of age should not exceed 10 in the case of day or 6 in the case of night work, and that precautions should be taken to prevent accidents. It laid down the principle of the liability of employers for accidents to their employees, and called for the appointment of an adequate corps of factory inspectors.

Though no immediate action followed the preparation of this bill, it in fact being disapproved by the minister of finance in 1866, its provisions have been stated, as it not only evidences the recognition at that date of the lines along which factory regulations should move, but formed the starting point for all subsequent efforts.

In 1870 a third commission was appointed by the minister of the interior to make an examination into all matters relating to the relations between employers and employees, the labor contract, apprentice-

ship, employment of children, etc. No results followed this inquiry, owing partly to the opposition of the employer class and partly to the difficulties inherent in the task assumed by the commission of preparing a law that should be applicable to all classes of labor. A fourth investigation undertaken by a commission in 1875 was likewise unproductive of results for much the same reasons. Inquiries were also made by the Imperial Technical Society and by a Moscow committee.

Though not productive of immediate results, the conditions shown by these investigations made it inevitable that action would sooner or later be had. In May, 1880, the council of ministers declared that provisional laws should be issued dealing with the most urgent matters. As the result of this decision a series of laws has been promulgated in rapid succession, most of which relate to the protection of children employed in factories.

The first of these laws was that of June 1-13, 1882, concerning the work and schooling of children, and this date may therefore be taken as marking the starting point of factory legislation as now incorporated in the industrial code of Russia. This law related to factories and manufacturing and analogous establishments, whether public or private. It prohibited the employment of children under 12 years of age in such places, limited the hours of labor of children from 12 to 15 years of age to 8 per day, provided for the appointment of 3 factory inspectors for the 3 most important manufacturing districts, besides providing for other protective measures.

This primary law has been amended and supplemented in a number of important respects by subsequent legislation. A law passed June 12-24, 1884, made stringent provisions regarding the schooling of children employed in factories and strengthened the inspection service. A third law, dated June 3-15, 1885, prohibited night work by women and children under 17 years of age in the principal textile industries. Finally, by a law dated April 24-May 6, 1890, the law was still further amended, and the important step was taken of relieving the law of its provisional character and definitely incorporating it in the industrial code of the Empire as sections 107-126.

In the meantime the Government had taken up the subject of the elaboration of a general factory act which should relate to all classes of factory operatives, adult males as well as women and children, and determine the conditions to be observed in making and dissolving the labor contract, the payment of wages, the infliction of fines, the protection of the health and lives of employees, etc. This work was finally consummated in the law of June 3-15, 1886.

This law consists of two distinct parts. The first relates to the labor contract, and is a development of the general principle of the Russian civil code. It applies to the whole Empire, and its enforcement is guaranteed in the same way as the execution of other contracts. The

second relates to the maintenance of good order, the imposition of fines, the payment of wages, etc., in factories, and was made to apply only to the 3 most important industrial governments—St. Petersburg, Moscow, and Vladimir. Subsequent laws (June 11–23, 1891, and March 14–26, 1894) extended its application to 15 other governments, so that the law in fact is now in force in practically all manufacturing Russia. A few slight modifications were introduced in the law of 1886 by the act of June 8–20, 1893. Finally, by the law of March 14–26, 1894, above cited, the law was definitely incorporated in the industrial code of the Empire as sections 34 to 106.

A special law, enacted August 26–September 7, 1886, made it obligatory upon factory owners and operators whose establishments included more than 100 workingmen to provide a hospital with at least 1 bed for each 100 employees.

Another special law was that of April 5–17, 1894, in relation to the protection of labor in metal works and other establishments operated in connection with mines, and therefore not constituting works covered by the general factory laws. A law for the protection of employees working below ground in mines had been passed May 13–25, 1880, but as it did not relate to surface work the law of 1894 was passed to remedy this defect.

There remains to be considered one other important branch of protective labor legislation, that of the limitation of the hours of labor of adult male workingmen. A 10-hour day had nominally been stipulated in the handicraft trades by the law of 1785, but its provisions soon became for all practical purposes a dead letter. The hours of labor of adults had also been restricted by administrative order in works attached to the ministry of war. It was not, however, until the passage of the recent law of June 2–14, 1897, that this radical principle of the legal regulation of the hours of labor of male adults can be said to have been effectively introduced into the Russian labor legislation.

THE LABOR CONTRACT.

The regulations contained in the industrial code concerning labor contracts between factory and workshop employees and their employers must be considered in the light of supplementing the general provisions of the civil code concerning contracts for service. According to the civil code a contract for personal service may be made before a notary, but this formality is not obligatory. The industrial code makes it obligatory that contracts between factory employees and their employers shall be in writing in the form of special papers or as entries in labor pass books belonging to the employees. In either case the terms of the contract must be fully set forth.

Any agreement which, contrary to the provisions of this law, has

for its purpose the restriction of the right of either party to appeal to the courts for a judicial determination of his rights is null and void.

The civil code does not distinguish between different forms or kinds of contracts. It merely prohibits contracts of a duration of more than 5 years. The industrial code, on the other hand, distinguishes between 3 kinds of contracts, viz, (1) those of a determined duration, (2) those of an undetermined duration, and (3) those where, as in the case of piecework, the duration is limited by the time necessary for the execution of a particular work.

The duration of contracts of the first kind can not exceed 5 years. The term is usually 1 year, except in the case of persons working half the year in factories and half in agricultural pursuits, in which case the term is 6 months. By the term "contracts of undetermined duration" are meant contracts for a month, week, day, or shorter time.

The civil code prohibits a workingman from leaving his work or an employer from dismissing an employee before the expiration of the term of service agreed upon. The industrial code supplements this by providing that in the case of a contract of undetermined duration at least a notice of a fortnight must be given before the contract can be terminated.

The employer is absolutely prohibited from reducing the wages of an employee, either by changing the basis upon which the work is calculated or reducing the days or hours of labor, or in any other way, before the expiration of the term of the contract, or without having given at least 2 weeks' notice in the case of contracts not for a fixed term. Reciprocally, the workingmen have no right to demand a change in the terms of a contract before its termination. Infractions of these provisions, which are based on the general provisions of the civil code, are punished, in the case of the employer by a fine of from 100 to 300 rubles (\$51.50 to \$154.50), without prejudice to the right of the employee to claim damages in a civil suit, and in case of the employee by imprisonment (art. 51 of the penal code) for as long as 1 month.

The labor contract between a factory employee and his employer can be terminated without regard to the foregoing provisions: (1) By a common agreement between the parties; (2) by the expiration of the term of service agreed upon; (3) by the completion of the work undertaken; (4) by either party giving a two weeks' notice in the case of contracts for an undetermined period of time; (5) by the employee being removed by a competent authority from the place of work, or being condemned to a term of imprisonment of such length that the performance of the contract is rendered impossible; (6) by the employee being compelled to perform obligatory military or civil service; (7) by the institution which has granted the employee a passport for a fixed time refusing to renew it; and (8) by a suspension of work in the establishment lasting more than seven days, as the result of a fire, boiler explosion, flood, etc.

Independently of the above cases, in which the labor contract can be considered as ipso facto sundered, the industrial code authorizes either the employer or employee to terminate the contract in certain cases. The employer can exercise this right without having recourse to a court in the following cases: (1) Where the employee without sufficient reason absents himself for more than 3 days at one time or 6 days in the course of the same month; (2) where the employee is absent for more than a fortnight at one time, even though with good cause; (3) where the employee is summoned before a court to answer for a crime entailing punishment by imprisonment or a more severe penalty; (4) where the employee is guilty of insolence or bad conduct which may prove of injury to the establishment or the personal security of those in charge; and (5) where the employee contracts a contagious disease. The dismissed employee has a right to bring an action for damages against his employer, and if the court decides that the contract of employment was illegally broken, it can fix the amount of the damage to be paid. Action must be taken by the employee within a month from his dismissal.

The employee, on his side, can demand, but only by judicial means, the termination of his labor contract in case the conditions regarding his remuneration are not observed, and in the following cases: (1) Where he is beaten, struck, or otherwise maltreated by his employer or a member of the latter's family or one of his agents; (2) where the conditions regarding food and lodging are not complied with; (3) where the conditions of work are injurious to the health of the employee; (4) in case of the death of the husband or wife or other member of the family of the employee who has been furnishing the family with the means of existence, and (5) where the member of the employee's family who has been supporting the family enters the obligatory military service.

The reciprocal moral obligations of employers and employees toward each other are set forth in the civil code. In a general way they consist in the duty on the part of the employee to be faithful, obedient, and respectful, and to maintain good order, and on the part of the employer to be just and kind toward the employees, to pay their wages fully and promptly, and not to impose on them work not comprehended in the labor contract.

PREVENTION OF ACCIDENTS AND PROTECTION OF HEALTH OF EMPLOYEES.

As yet no general law has been enacted for determining the precautions that must be taken in industrial establishments for the protection of the lives and health of employees. Special laws having this purpose in view were enacted for mines and iron and steel works operated in connection with them May 13-25, 1880, February 22-March 6, 1893.

and April 5-17, 1894. The local authorities, under this general power to take action regarding the public health, have subjected certain classes of industrial work presenting special dangers to a more or less effective system of regulation.

The most important power now exercised by the Government concerning the protection of employees is that possessed by the Government factory commissions, which, as will be subsequently described, are organized, in accordance with the factory law of 1886, in each of the most important manufacturing governments of the Empire for the purpose of supervising the execution of the factory laws. These commissions, among their other functions, are specifically given the duty of preparing regulations, which shall be binding upon employers, concerning the measures to be taken in factories and workshops to safeguard the lives, health, and morals of employees, and to provide them with medical attendance when sick or injured.

In virtue of this direction the commissions have issued orders of the nature above described. Though binding upon employers in their respective districts, they are not in the nature of laws, as they are different for the different districts and are subject to constant change. It would be quite beyond the scope of the present work, therefore, to attempt a more detailed statement of the nature of their provisions.

HOURS OF LABOR: SUNDAY AND NIGHT WORK OF ADULT MALES.

The regulation of the hours of labor of adult males, as well as the conditions under which they may be employed on Sunday and at night, was accomplished, as has been shown, by the law of June 2-14, 1897. Following is a translation of this law:

1. All factories and workshops to which articles 128 to 156 of the industrial code apply, (a) mines, blast furnaces, iron and steel and other metal works, gold and platinum mines, railway shops, as well as factories and establishments belonging to the cabinet of His Imperial Majesty, to the general administration of the appanages, and to the domain of the State, shall be subject to the following regulations concerning the duration and division of the hours of labor.

Technical establishments coming under the ministries of war and the marine are subject to the special regulations and orders of those departments.

2. In fixing the workday or hours of labor in each 24 there must be counted the time during which the workingmen, in conformity with the provisions of the labor contract (arts. 92, 103, 134, 137, and 142 of the code), are obliged to be inside the works at the disposition of the persons directing their work.

In mines the time consumed by the workingmen in descending into and leaving the mines must be counted as work time.

3. That work shall be considered as night work which, in the case

a The law thus does not apply to shops in which less than 16 persons are employed and no use is made of a mechanical motor.

of work performed under the single shift system, is performed between the hours of 9 p. m. and 5 a. m., or, in the case of work under the system of two or more shifts, is performed between the hours of 10 p. m. and 4 a. m.

In gold and platinum mines exploited by private persons, article 29 of the appendix to article 661 of the mine regulations shall apply.

4. In the case of persons employed exclusively during the day, the hours of labor must not exceed $11\frac{1}{2}$ in each 24, and on Saturday and the days before the 12 holidays mentioned in section 6 must not exceed 10. On the day before Christmas work must not be prolonged beyond noon.

5. In the case of workmen employed partly during the night the hours of labor must not exceed 10 per day.

6. The holidays upon which cessation from work is obligatory (sec. 2 of art. 142 of the industrial code), are, in addition to Sundays, January 1 and 6, March 25, August 6 and 15, September 8, December 25 and 26, the Friday and Saturday of Holy Week, Ascension Day, and the second day of Pentecost.

In the list of days upon which minors and young persons are not allowed to work (art. 142 of the industrial code), (a) must be included all Sundays and holidays during which adults must not work.

In the case of employees of a nonorthodox faith, those holidays not recognized by their church may be omitted from the list. In the case of employees who are not Christians it is permissible to introduce in the list of rest days days of the week other than Sunday, conformably with the law of their religion. The observance of the other holidays mentioned in section 6 is not obligatory upon them.

In gold and platinum mines exploited by private persons, article 28 of the appendix to article 661 of the mines regulations apply.

7. Acting in accord with the director of the establishment the workmen can, by way of exception to section 6, work on Sunday instead of a week day. The agreement to do so must be immediately made known to the authorities charged with the supervision of the execution of the present law.

8. Overtime work is that which is performed by an employee at a factory or mill during the hours when according to the shop regulation (art. 142 of the industrial code) he is not required to work. Overtime work is only permissible where it is expressly agreed to by the employer and employee. In the labor contract only that work of this kind can be included which is rendered necessary by the technical conditions of operation.

9. It is the duty of the competent ministers, acting in conjunction with the minister of the interior, (a) to elaborate the foregoing provisions by issuing detailed regulations and instructions concerning the division of the hours of labor generally, and for individual industries in particular (duration of labor, organization of shifts, number of employees, intervals of rest, etc.), as well as those having for their purpose the regulation of the execution, division, and remuneration of overtime work; (b) to authorize, if the nature of the work requires it (continuous work, etc.), or according to the nature of the work (care of steam boilers, ordinary and extraordinary repairs, etc.), and in other particularly important exceptional cases, exceptions to the provisions

^aThis article prescribes that the shop rules must state the number of holidays during the year, but need not mention which days these are.

of the present law for the purpose of making them either more stringent or less effective, in the case of special branches of industry or special establishments or special categories of workingmen, and finally to issue regulations fixing these exceptions; (c) to promulgate regulations concerning the duration and division of the labor period in the industries and trades which are specially injurious to the health of their employees, by which the maximum hours of labor fixed by sections 4 and 5 are reduced according to the danger attaching to these industries and trades, account being also taken of precautionary measures for lessening this danger.

In the case of the factories and establishments belonging to the cabinet of his Imperial Majesty, to the general administration of the appanages, and to the domains of the State, the regulations and provisions of section 9 are published by the competent ministers without consultation with the minister of the interior.

10. The officials connected with the service for the inspection of factories, metal mills, and railway shops of the State are charged with the execution of the present law and the orders issued in virtue of section 9 as far as industrial establishments operated by private individuals and gold and platinum mines are concerned. The supervision of the execution of the provisions applying to establishments belonging to the cabinet of his Imperial Majesty and to the general administration of the appanages and the domains of the State is intrusted to the officials having charge of the direction of these establishments.

11. The present law will enter into force January 1, 1898. The competent ministers, acting in conjunction with the minister of the interior, however, have the power of applying its provisions before that date in such districts or particular industries or establishments as they may specially designate.

Section 9, it will be observed, grants a very wide authority to the competent ministers of state to issue orders modifying or extending the provisions of the foregoing law. In pursuance of this authorization an order was issued September 20–October 2, 1897, by the minister of finance, acting in conjunction with the minister of the interior, for the purpose of fixing more definitely the duration and division of the work period in factories and mills. To a considerable extent this order but reproduces the provisions contained in the law. The principal additional regulations provided for are as follows:

Those intermissions of work during which the employees are free to leave the establishment and do as they please are not considered as part of the working time. Where 18 hours of work per day are performed by means of two shifts the hours of labor of employees may be increased to 12 per day, provided that no workingman performs more than an average of 9 hours' work per day during any period of two weeks. When the hours of labor per day exceed 10 there must be an interval of rest of at least one hour's duration, the time of occurrence of which will be determined according to the nature of work and local conditions. Exceptions to this provision can only be authorized when, at the time the shop rules are approved, it is evident that there are serious obstacles to the application of the provision resulting from the nature of the work carried on, or where its observ-

ance, on account of local conditions, is recognized to be unfavorable to the employees. Opportunity must be given to the employees to take their meals at least as often as once in 6 hours. Where it is impossible to have the work cease at these intervals of time the workingmen must be permitted to take their meals while the work is in progress. In this case the shop rules must indicate the place where meals must be taken. On Sundays and holidays at least 24 hours' uninterrupted rest from labor must be allowed. Exceptions to the provisions regarding hours of labor and intervals of rest, and work on Sundays and holidays, are authorized in the case of workingmen engaged in work that must be continuously prosecuted, in so far as such exceptions are necessary, and in taking into account the following considerations: (a) The number of hours of labor in two consecutive days must not in general exceed 24 for each employee, and, in the case of two consecutive days, with change of shift, 30 hours; (b) every workingman must be free from work for 24 consecutive hours at least 3 times per month, if the number of his hours of labor per day, excluding the days when there is a change of shifts, does not exceed 8, and at least 4 times per month if his hours of labor exceed that number. These exceptions are only authorized in respect to the work specially designated in the shop rules and for which the mode of operation is indicated.

Exceptions to these provisions regarding hours of labor, etc., are also authorized in the case of workingmen employed in performing such work as the making of repairs, the firing of boilers, the guarding of the plant, and in general all that work the prior performance of which is necessary in order that the work proper of the establishment may be begun. These exceptions are only authorized in the case of those works which are specially designated in the shop rules and for which the mode of operation is indicated.

The provisions regarding hours of work and Sunday and holiday work may be disregarded in the case of the following kinds of work: (a) Repairs necessitated on account of sudden accidents to boilers, motors, machinery, etc., which interrupt work in all or a part of the establishment; (b) temporary work required on account of a fire or other unexpected occurrence, in order that the work of the establishment may be carried on.

In addition to the cases in which exceptions may be granted to the regulations which have just been given the proper ministers may authorize other exceptions in specially important cases for determined classes of industries or categories of employees. Requests for these exceptions must be transmitted to the minister of finance through the inspectors of factories.

The number of hours of overtime work permitted in the case of any employee must not exceed 120 per year. In this number, however, are not to be included those hours worked overtime in the performance of work that is obligatory upon the employee in virtue of the labor contract or the work rendered necessary by unexpected accidents to boilers, machinery, etc., and other accidents. If the overtime work affects the whole establishment or a considerable body of the employees, notice must be immediately sent to the inspector of factories. The inspector can require notice in other cases, such as where but a few employees are affected. Every director of an industrial establishment must prepare a report showing all overtime work performed in his

establishment in such a form that the number of hours worked by each employee and the time and circumstances under which the work was performed can always be seen.

WORKINGMEN'S PASS BOOKS.

Each employee must be supplied with a pass book of a form approved by the governmental factory commission within 7 days after he begins work in the establishment. This does not apply to workingmen employed to do other work than that for which the establishment is conducted. The book must be furnished gratuitously. It must contain the full name of the owner; the length of service agreed upon, and the time for which the passport of the workingman is valid; the amount of wages to be paid, the manner of its calculation, and the conditions of payment; the sum to be paid by the workingman for the use of a lodging, baths, and other conveniences supplied by the establishment; any other conditions of the labor contract that the contracting parties desire to have inserted; the amount of wages earned and the amount of fines imposed, with an indication of the reasons for which they were imposed; and, finally, an extract from the legislative provisions and shop regulations showing the rights, duties, and responsibilities of the employees.

EMPLOYMENT OF WOMEN AND CHILDREN.

The first law promulgated for the purpose of regulating the hours of labor of children was that of June 1-13, 1882. The laws of 1884, 1885, and 1890 that followed present the development of the principles there established, besides making them definite parts of the industrial code. The legal provisions concerning this subject now in force are as follows:

The employment of children under 12 years of age in industrial establishments, whether conducted by the State or private individuals, is absolutely prohibited.

For children from 12 to 15 years of age the normal duration of a day's labor shall not exceed 6 hours in each 24, exclusive of the time necessary for meals, school attendance, and rest; not more than 4 hours' continuous labor shall be performed, and no work shall be permitted between the hours of 9 p. m. and 5 a. m., or on Sundays and legal holidays.

To this general restriction of the employment of children from 12 to 15 years of age a number of exceptions are permitted where the circumstances are such as to justify them. Six hours' continuous work is thus permitted where the nature of the work in any establishment is such as to render it indispensable, but in this case the hours of labor per day must not exceed 6, and the local inspector of factories must be informed that advantage is being taken of this exception.

In establishments which are operated for 18 hours per day by means of two shifts of 9 hours each the children may be employed 9 hours

per day, provided that not more than $4\frac{1}{2}$ hours' continuous work is required without an intermission. The purpose of this exception is to encourage establishments to abandon the system of continuous work for 24 hours and thus do away with night work, properly speaking, and shorten the hours of adult labor to 9 hours per day.

Three exceptions are permitted to that part of the general rule which relates to work at night and on Sundays and holidays. In glass works in which continuous fires must be maintained children may be employed for 6 hours in each 24 at night, provided that they do not commence work on the following day until they have enjoyed a rest of at least 12 hours. In establishments which are operated for 18 hours per day by means of two shifts of 9 hours each children may be employed at night, provided their hours of labor do not fall between the hours of 10 p. m. and 4 a. m. The purpose of this exception is the same as that given above, viz, to encourage the organization of work in two shifts of 9 hours each instead of 24 hours' continuous work.

The third exception relates to Sunday and holiday work, and consists in the power of the chief inspectors of factories, upon the recommendation of the lower inspectors, to authorize the employment of children upon Sundays and holidays, so far as adults can be employed on those days.

In addition to these specific restrictions upon the employment of children the law prohibits the employment of children in work which is detrimental to their health. The ministers of finance and of the interior are directed to designate the kinds of work recognized as dangerous to the health of children, or exceeding their strength, and the ages of the children, not beyond 15 years, to whom such work shall accordingly be prohibited. Thirty-six categories of industries and kinds of work have thus been indicated by a ministerial order of May 14, 1893, as work in which children under 15 years of age shall not be employed.

Careful provision is made by the law that children employed in factories and workshops shall have an opportunity to attend school. It is made obligatory upon employers to permit all children employed by them who do not have certificates of primary instruction to attend primary schools for at least 3 hours per day or 18 hours per week. The employers are encouraged to organize and maintain special schools for their employees where suitable public or other schools are not already in existence. The inspectors of factories are also directed to use their best efforts to have schools established by the local ecclesiastical or other authorities for the benefit of children employed in factories. Where a secondary school has been established for children working in factories, the proprietors of factories must permit such of their minor employees as have certificates of primary instruction to attend it.

The only special restrictions upon the employment of young persons, or those from 15 to 17 years of age, and women of any age, relate to night work. No young person, as above defined, or woman

shall, except as specially provided for below, be employed at night, by which is meant between the hours of 9 p. m. and 5 a. m., in any of the textile industries. The ministers of finance and the interior have the power to extend this prohibition to any other industry.

Exceptions to this general rule are permitted in the following cases:

(1) In establishments working 18 consecutive hours by means of two 9-hour shifts young persons and women may work at night, provided they are not so employed between 10 p. m. and 4 a. m.; (2) in serious cases, as after a long suspension of work, or, as the result of pressure of orders before the holding of fairs, the governmental factory commission or governor can authorize the employment of young persons and women at night, provided that they do not begin work on the next day until after noon; (3) the factory commissions or governors can authorize young persons and women to work at night where they work with the heads of their families. The purpose of this exception is a moral one to prevent the separation at night of wives from their husbands and children from their parents.

In the way of elaboration of the foregoing provisions, power is given to the ministers of finance, of the interior, and of public instruction to issue regulations fixing the details of the application of the laws concerning the employment of minors. Ministerial instructions have thus been issued which empower the inspectors of factories to require directors of industrial establishments to inform them in advance of their intention to employ children, their probable number, and their hours of labor. Inspectors must also see that in each establishment there is kept a special register giving for each child employed his name and age, the address of his parents, the date at which he enters the factory, the nature of his work, his hours of labor, information concerning his attendance at school, etc. This register must have a special column in which the inspectors can enter remarks. The inspection department must also prepare and post in each establishment employing children an order setting forth the legal provisions concerning the labor and education of minors, the classes of work in which children shall not be employed, the list of holidays, and in general all administrative rules upon the subject that are binding upon the employer.

If inspectors observe, in the course of their visits to factories, that children of an age less than that permitted by law are employed, and that they do not have a parent or guardian employed in the same establishment, or that there are employed young persons from 15 to 17 years of age who are so sick or frail that they are not fitted to perform the work assigned them, they can, after a medical examination in the latter case, order the director of the establishment to dismiss the child or cease to employ him at the work shown to be unsuitable to his physical powers.

The penal code provides for the infliction of imprisonment and fines upon directors of factories or others guilty of violating any of the provisions regarding the employment of children and young persons.

FACTORY AND WORKSHOP RULES.

The director of each industrial establishment must prepare and post in the workrooms a set of shop regulations. These regulations must be approved by the inspector of factories, and must contain: (1) Tables showing, separately for adults and minors, the hours for commencing and ending work, the number and duration of the intervals of rest, the hours for meals, and the time when work ceases on the days before Sundays and holidays; (2) a list of the holidays upon which work will be suspended; (3) the order and duration of the absences permitted to workingmen who leave their work or dwellings, if they live in houses belonging to the establishment; (4) the conditions governing the use of houses, baths, and other conveniences supplied by the establishment; (5) the times at which machines and apparatus will be cleaned and the shops put in order, if such work must, according to their contracts, be performed by the workingmen; (6) the duties of the employees in respect to the maintenance of good order and proper conduct in the establishment; and (7) the precaution to be taken in the use of machines, against fire, etc.

Every industrial establishment must also keep a register showing the name, residence, and age of all persons employed by it, and the source from which they have received their passports.

THE INSPECTION OF FACTORIES.

A special corps of factory inspectors was provided for by the factory law of June 1-13, 1882. It was reorganized and considerably strengthened by the laws of 1886, 1890, and 1894, that have been mentioned. The last law in particular called for a large increase in the number of inspectors. As at present organized the force consists of 18 inspectors of the first class and 125 inspectors of the second class. It is under the immediate direction of the bureau of commerce and manufactures, ministry of finance.

The duties and powers of the inspectors are set forth partly in the industrial code and partly in the ministerial instructions of June 15-27, 1884, and June 11-23, 1894. They are there enumerated in great detail, but a summary of them will here suffice.

The duties of the inspectors are: (1) To exercise an immediate oversight of the execution of the law concerning the employment of women and children in factories; (2) to look after the establishment of special schools for the primary instruction of minors or the adaptation of the existing public schools to this purpose; (3) to prepare, with the assist-

ance of the local police, reports concerning the infractions of the law and to transmit them to the proper judicial authorities; (4) to prosecute the offenders; (5) to inspect steam boilers and supervise their use as provided by law; (6) to collect, verify, and classify statistical material concerning industrial establishments that they may obtain in the performance of their duties; (7) to perform such special tasks as may be confided to them by the governors, such as the description of factories, examination of steam engines and boilers, etc.; (8) to oversee and verify the payment of the taxes upon steam boilers provided by the law of March 14, 1894; (9) to prepare reports upon the cases where these taxes are not paid, and (10) to make stated reports to the bureau of commerce and manufactures, according to the form prescribed by that office, concerning the application of the labor laws. In certain designated governments the inspectors must also perform certain other duties having to do with the maintenance of good order in industrial establishments and the prevention of labor disturbances.

Inspectors are not allowed to participate in commercial or industrial enterprises. They must gratuitously aid directors of industrial enterprises with technical advice, and generally must be at the disposition of both the employers and employees to render such assistance as is within their power. They must especially seek to prevent disputes arising between employers and their employees, and to adjust them after they have arisen. The bureau of commerce and manufactures must be kept constantly informed by telegraph of all conflicts, and detailed reports must be made by the inspectors to it upon the cause, beginning, duration, and result of such conflicts.

The inspectors have full power to investigate all matters coming within the sphere of their duties, to visit establishments, examine persons, verify written statements, call for the furnishing of information desired, demand the production of books, etc. If any obstruction is placed in the way of the performance of their duties, they can call upon the local police authorities for assistance. In performing their duties, however, the inspectors must seek to cause as little friction as possible. They must explain the provisions of the laws to those who do not understand them or are ignorantly violating them. It is only where the law is deliberately violated that prosecutions should be resorted to. The date of the visit to an establishment, the explanations and orders given, etc., must be entered in a special register to be kept by the establishment.

The inspectors must require all accidents causing the death or serious injury of a person to be reported to them. In exceptional cases they must make an examination of the causes and circumstances of the accident.

In addition to this provision of a corps of factory inspectors, the law provides for the creation of a commission in each government

exercise a general control and supervision over the execution of the labor laws. These commissions are presided over by the governors and are composed largely of ex officio members of the government administration. In governments where there are consultative committees of commerce and manufactures, 2 members of those bodies are members, and in other governments 2 members are selected from among the manufacturers of the district. Technical officers of the government can be called upon to serve in a deliberative capacity only.

The functions of these commissions are to supervise the uniform enforcement of the law, to issue regulations within well-defined limits, and to exercise certain judicial powers. They thus may issue orders having for their purpose to protect the lives, health, and morals of the employees and to fix the rules for the furnishing of medical attention to the employees. They decide questions concerning the enforcement of the law that are raised by the inspectors and examine complaints against the actions of these officials. Finally, in their judicial capacity they judge concerning the first and second infractions of certain provisions of the industrial code by employers. These relate to the employer retaining a workingman who does not have a proper labor pass book and the nonobservance of the regulations concerning the keeping of registers, the posting of notices, the fining of employees, the improper retention of wages or the improper application of the portion retained, etc. The action of the commissions in this respect is final in cases where the fine does not exceed 100 rubles (\$51.50). In other cases an appeal can be made to the ministers of finance and the interior, and from them to the highest judicial tribunal of the Empire. It will be observed that the infractions of the law that may be prosecuted in this way are all of a formal character. Others involving degrees of guilt are prosecuted through the ordinary civil courts.

PAYMENT OF WAGES, TRUCK SYSTEM, FINES, ETC.

The industrial code requires that wages must always be paid in cash and never in scrip or in kind, except as specially permitted by the law. The penal code provides for the infliction of fines of from 50 to 300 rubles (\$25.75 to \$154.50) upon employers disregarding these provisions.

In order to give to workingmen the opportunity of procuring the necessities of life at a reasonable price and of a good quality, and of enjoying other advantages, the industrial code provides that, if the director of an establishment so agrees, a cooperative distributive society may conduct operations for the sale of articles of good quality within the grounds belonging to the establishment. Other stores can not be maintained within the grounds unless the permission of the inspector of factories is obtained. In all cases a list of the prices

charged for the articles offered for sale must be approved by the inspector of factories and posted in the storerooms.

Workingmen who make use of the dwellings, baths, or other conveniences, supplied by the establishments for which they work, can not be charged a higher rate for their use than that indicated in a tariff approved by the inspector of factories.

Wages must be paid at least once a month, if the contract is concluded for a longer time than one month, and at least twice a month if the duration of the contract is not determined. Where the contract is for the execution of a particular work, other than continuous work under the piecework system, wages must be paid as agreed upon in the contract, or in default of any stipulation, upon the completion of the work. In this case the accounts of the employees must be kept upon a special pay roll. If the workingman does not receive the wages due him, he can demand through the courts the annulment of the contract. If this is granted the court can award him damages, in addition to the amount of wages due him, not to exceed two months' wages, in the case of contracts for a fixed term, and two weeks' wages in the case of indeterminate contracts.

Especial care is taken by the industrial code that improper deductions shall not be made from the wages of employees. In no case can wages be retained to pay the debts of the employees. This, however, does not refer to employers reimbursing themselves for goods furnished or for money advanced by them to enable the employees to obtain the means of supporting life, or the furnishing of necessary articles taken from the factory supplies. In these cases, however, the amount retained must not exceed one-third of the wages due if the employee is unmarried, or one-fourth if he is married or a widower with children. The employers can not receive interest on their advances or any reward for guaranteeing their pecuniary engagements. It is expressly provided that no part of wages can be retained to defray medical attentions, to meet the expense of lighting the shops, or for the use of tools made use of by the employees.

The imposition of fines upon employees is prohibited except in the three cases: (1) For negligence in performing work, (2) absence from work, and (3) the infraction of the shop rules. By negligence in performing work is meant the injuring of materials, products, or plant, by the fault of the employee. In addition to the fine imposed by the director of the establishment, the employee guilty of negligence can be compelled by means of a judicial action to indemnify the employer for damages resulting from his neglect. By absence from work is meant absences of at least half a day at a time. The fine imposed in this case must be proportionate to the length of the absence and the wages of the employee, but must not exceed in any one month the wages for 6 days. In addition to the fine the w

for the period that the employee was absent may be retained. In the case of pieceworkers the fine must not exceed 1 ruble (\$0.51½) per day of absence or 3 rubles (\$1.54½) in a month. The fine should not be imposed if the absence is due to an unforeseen accident, sickness, or death in the family, etc.

The following are considered as infractions of the shop regulations: (1) A workingman arriving at the establishment late, or absenting himself without leave; (2) the failure to observe the precautionary rules concerning the use of fire, in cases where the director of the establishment does not break the labor contract on this account; (3) the failure to observe the rules concerning neatness and decency; (4) disturbing work by cries, quarrels, noise, etc.; (5) disobedience to orders; (6) coming to work in a state of intoxication; (7) the organization of prohibited gambling games; (8) the failure to observe other shop rules. The fine imposed for each distinct infraction of these rules can not exceed 1 ruble (\$0.51½).

Each act punishable by a fine, in virtue of the preceding provisions, must be defined in a special statement with an indication of the amount of the fine, which statement must be approved by the inspector of factories, and be posted in the establishment.

The total amount of the fines imposed on any workingman must not exceed one-third of the wages due him for the work period as determined by the frequency of wage payments. If the employee is guilty of infractions the fines for which would exceed this amount, the director of the establishment can terminate the labor contract. The workingman, however, can in this case appeal to the courts, and if it is shown that his dismissal was not justified, he may recover damages from the employer.

All fines imposed upon an employee must be entered in the pass book belonging to the person fined within 3 days after their imposition, together with the reason for which they were imposed. The deductions from wages on their account must be made at the next pay day. All fines must also be entered in a special register belonging to the establishment, which must be shown to the inspectors of factories upon their request.

No appeal can be made against the action of the employer in imposing fines for the reasons permitted by law. If the inspectors, however, in visiting the establishments, are satisfied from declarations made by workingmen that fines are imposed contrary to law, they can hold the employers responsible on that account.

The receipts from fines must be paid into a special fund, the management of which is in the hands of the director of the establishment. This fund must be used wholly for the benefit of the employees in ways approved by the inspector of factories in conformity with rules published by the ministers of finance and of the interior.

STRIKES AND LOCKOUTS.

The responsibility of employers and employees in the case of attempts to force a change in the conditions of the labor contract is defined in articles 1358, 1359, and 1359½ of the penal code. Directors of factories who, contrary to the provisions of the law, reduce the wages of their employees before the expiration of the term agreed upon, or without giving due notice, are liable to a fine of from 100 to 300 rubles (\$51.50 to \$154.50), without prejudice to the right of the employees to claim damages by a civil suit. If the offense is committed a third time, or if in the case of the first or second offense this action results in an agitation on the part of the workingmen followed by troubles or violence necessitating special measures for their repression, the director can be imprisoned for as long as three months and deprived of his right to direct a factory for two years.

If, on the part of the workingmen, a concerted movement is made for the purpose of suspending work before the termination of the contract of service for the purpose of compelling the employer to raise wages, the instigators of the movement may be imprisoned for from 3 weeks to 3 months, and the others taking part for from 7 days to 3 weeks.

If a strike actually breaks out, having for its purpose to compel the employer to raise wages or change other conditions of the contract before its expiration, the leaders can be imprisoned for from 4 to 8 months and the others for from 2 to 4 months. Those, however, who resume work at the first request of the police will be exempt from punishment. Strikers who destroy or injure any property of the factory or belonging to persons connected with the factory will be condemned to imprisonment of from 8 to 16 months, in the case of the leaders, and from 4 to 8 months in the case of the others. These are considered as minimum penalties, which will be increased each time there occurs a more grave offense. Strikers who force other workingmen, by violence or threats, to leave their work or not to return to it, will be punished by imprisonment of from 8 to 16 months in the case of the leaders, and 4 to 8 months in the case of the others, provided that the violence does not represent a more serious offense.

THE NETHERLANDS.**EMPLOYMENT OF WOMEN AND CHILDREN.**

Protective labor legislation in the Netherlands may be said to begin with the enactment of the law of September 19, 1874, concerning the employment of children. By this law the employment of children under 12 years of age was prohibited except in field work and domestic service. Numerous attempts were made to amend this law by making

the restrictions upon child labor more rigid. Nothing, however, was accomplished until 1886, when a parliamentary commission was appointed to make an investigation into the whole question of the conditions of labor in factories and workshops, with special reference to the working of the law of 1874, and what further legislation was desirable.

The work of this commission was interrupted by the dissolution of Parliament in August, 1887, but before separating the commission presented a valuable report upon the work it had done, and made various recommendations for legislative action. Among these was that for the further regulation of the employment of children and the limitation of the employment of women. In 1888 the minister of justice introduced a bill to carry out this recommendation. It became a law May 5, 1889, and with slight modifications constitutes the law now in force.

Unlike the law of 1874, it relates to the employment of women as well as children. It is very comprehensive, as its provisions relate to household industries and small establishments as well as factories and workshops proper. Following is a free translation of this law, as its provisions now stand, as the result of certain changes made in it by amending acts. These amending acts are those of July 20, 1895, relating to the protection of the lives and health of employees, and December 31, 1896, enacted for the special purpose of making a slight change in the law of 1889.

1. Under the term labor, as used in the present law, is included all industrial work, except (1) agricultural, horticultural, or forest culture work, the raising of cattle, or the digging of turf, and (2) industrial work performed outside of factories and industrial workshops of the person with whom the employee resides, provided that this work is done elsewhere than in a dwelling or stable.

2. Under the term factories and workshops, as used in the present law, are included all places, open or closed, in which work is usually performed for an industrial concern in making, transforming, repairing, decorating, or finishing objects or materials, or which are made use of for offering these articles for sale or devoting them to any other particular use, or in which these articles are subjected to any transformation.

The law does not apply to kitchens or other places of a similar nature where articles of food and drink are prepared to be immediately consumed, nor to pharmacies.

3. The employment of children under 12 years of age in work as above defined is prohibited.

4. The King may, furthermore, by order prohibit, absolutely or under specified conditions, the employment of children under 16 years of age, or the employment of women in factories and workshops in certain kinds of work presenting danger to their health or lives, either in a general manner or as the result of the nonobservance of certain conditions, or on account of the manner in which the work is carried on or the kinds of materials employed.

5. A child under 16 years of age or a woman must not be allowed to commence work in a factory before 5 a. m., nor to work after 7 p. m., nor to work more than 11 hours per day. In certain industries the King may, by order, provide that the labor of these persons shall begin or end at other hours than are indicated above, provided that not more than 11 hours' work per day is permitted. This order may be general for the whole Kingdom or relate only to particular communes, and may designate the conditions under which its provisions may be availed of. In no case, however, shall children under 14 years of age or women be permitted to begin work before 5 a. m. or continue at work after 10 p. m.

In exceptional cases the governors of the provinces may authorize, in writing, that the employment of children under 16 years of age and women in a particular factory or workshop may begin 2 hours earlier or continue 2 hours later than the regular time during not more than 6 consecutive days, or on alternate days during not more than 14 days. Where this is done the total hours of work must not exceed 13 per day, and in the case of children under 14 years of age and women the work hours must be between 5 a. m. and 10 p. m.

In urgent cases a similar permission may be given by the mayor of a commune, which is valid for not more than 2 consecutive days of work. The mayor must within the next 24 hours inform the governor of the province of his action, and this officer may, if he deems it advisable, extend the authorization to 6 days.

The same establishment can not receive a second authorization of this character within the 8 days following a prior authorization unless authorized by the minister charged with the execution of this law.

6. The employer must see that children under 16 years of age and women enjoy an intermission from work of at least one hour between the hours of 11 a. m. and 3 p. m. The minister may, in imposing such conditions as he deems necessary, exempt particular factories from this requirement, provided that the hours of labor required are not thereby extended to more than 11 per day. The employees must not be allowed to remain in closed workrooms during the intervals of rest.

7. Children under 16 years of age and women must not be employed in factories and workshops on Sunday.

This prohibition does not apply to labor designated by official order and performed by women over 16 years of age in butter and cheese factories, provided that the conditions established by the public order either for all or only certain communes of the Kingdom are observed. (a)

In the case of persons belonging to a religious profession which devotes some day other than Sunday to religious observances, this provision is replaced by one which prohibits their work during the 24 hours of such other day, if they inform their employer that they do not wish to work on that day. This declaration must be written and signed. In the orders mentioned in section 5 the King may permit boys from 14 to 16 years of age to be employed on Sunday until not later than 6 p. m. Where the labor of a boy under 16 years of age is absolutely essential in a factory in order to repair or clean a boiler, his employment on a single Sunday may be authorized by the mayor in writing.

^aThis clause was inserted as an amendment to the original act by the law of December 31, 1896.

8. Women must not be employed in factories and workshops during the 4 weeks following their confinement.

9. Until the contrary is proved, a child under 16 years of age or a woman found in a workroom which is not also used as a dwelling room, or a child under 16 years of age found on board of a vessel not used for transporting passengers or as a dwelling place is presumed to be there employed.

10. The employer must not permit a child under 16 years of age to be employed unless it has in its possession a card giving its name, the date and place of its birth, the name and address of the person or establishment under whose charge it lives, and the name and address of its employer. The employer must exhibit this card to the inspectors whenever requested to do so. The King must determine the form of this card. It must be signed and delivered by the mayor of the commune in which the person works. The cards and the necessary extracts from the registers of births must be furnished gratuitously. Within 48 hours after the termination of a labor contract the card must be returned by the employer to the employee after notice has been given to the mayor who issued the card of the dates at which the employee entered and left the service of the employer.

11. Every director of a factory or workshop in which children under 16 years of age or women are employed must post in a conspicuous place in the factory or place of work a list, signed by him and verified by the mayor, of the names of such children and women, showing for each the hours for beginning and ending work, the hours of labor, and the weekly rest day. The King may, by order, exempt employers in designated trades from the obligation to indicate the hours of labor in this list.

12. The enforcement of the law is intrusted, subject to the supervision of the minister, to inspectors appointed by the King, who also determines their duties and powers. The number of inspectors was limited by the original law to 3. This provision, however, was repealed by the law of July 20, 1895, regarding the protection of the health and lives of employees, which leaves the number of inspectors to the judgment of the King.

13. Employers and employees must furnish the inspectors with all the information required by the latter in order that they may properly enforce the law.

14. Inspectors must not be interested, either directly or indirectly, in any industrial or commercial undertaking.

15. This article, which related to the giving of notice of accidents, was repealed by the law of July 20, 1895.

16. The inspectors must make a report of the result of their operations every two years to the minister charged with the execution of the law. These reports must be communicated either in their entirety or in abstract to the legislative chambers. The original law provided for annual reports. The present provision was introduced by the law of July 20, 1895.

The remaining sections of the law relate to penalties that may be imposed on account of infractions of the law and the method of their imposition, and certain provisions of a temporary character. As they are of but little interest outside the country to which they relate they are not here reproduced.

It will be seen by a reading of the foregoing law that in a number of cases power has been conferred upon the King to issue orders determining, either more particularly the conditions that must be observed in industrial establishments, or the circumstances under which exemptions from the general regulations may be enjoyed. Among these cases the most important is that having reference to the more definite determination of the kinds of work in which, on account of the dangers that they present, the employment of women and children shall be prohibited or subjected to special conditions. Successive orders having this purpose in view were issued July 15, 1891, August 11, 1892, and January 21, 1897, the last abrogating and replacing the preceding orders. This decree thus completes the labor law in an essential particular, and its provisions should be read almost as a part of the latter. The order is exceedingly technical in part, and it has therefore been thought best to condense it somewhat in translation.

ARTICLE I. The employment of children under 16 years of age and women is prohibited in the following kinds of work in factories and workshops:

1. As regards gearing in motion, in such work as (1) oiling, cleaning, examining, and repairing; (2) tightening or repairing driving bands, ropes, or chains; (3) putting on or removing such gearing unless the belts are not broader than 55 millimeters [2.17 inches], and the person putting them on or removing them does not have to leave the floor.

2. As regards machinery in motion, in such work as oiling, cleaning, examining, and repairing. Under this head that work will be considered dangerous which is either so designated by the competent inspector or which is performed by children under 16 years of age or women wearing dresses with large sleeves, shawls the ends of which are untied, bonnets with strings untied, or loose aprons.

3. As regards machinery at rest, in such work as oiling, cleaning, examining, and repairing, so long as the means of transmitting the power which operates the machine is still in motion. This prohibition does not apply if the machinery has been disconnected or made fast in such a manner that it can not be set in motion in an unexpected way. The competent inspector may issue orders respecting this point, the nonobservance of which will be considered as equivalent to not having the machinery disconnected or made fast in the manner above described.

4. Work in connection with machinery or means of transmitting power run by a motor, unless in every case a distinctly recognizable signal is given before the motor is started.

5. Work in covered furnaces or other inclosed places in which the temperature exceeds 32° Celsius [89.6° Fahrenheit].

6. Work in places in which there is less than 1.8 meters [5.9 feet] of space between the floors on which the work is carried on and parts of machinery in motion that may be dangerous, unless these parts are sufficiently protected according to the judgment of the competent inspector. The section enumerates a number of parts of machinery, motors, and gearing apparatus, such as fly wheels, cogwheels, moving pistons, projecting rods, pulleys, driving bands, windlasses, etc., which

shall be considered as dangerous, though the section applies generally to all parts of machinery presenting dangerous features.

7. Work near heavy gearing which, taking into consideration its height, may by falling endanger the employees, or near weaving machines the shuttles of which move at a rate of more than 80 times a minute, unless these apparatus are, in the opinion of the competent inspector, protected as far as the nature of the work permits.

8. Work in connection with machines the cutting, rapidly moving, or compressing parts of which present features of danger, such as circular and band saws; beading, tracing, and planing machines; wood-working machines; machines for cutting straw, paper, or rags; metal-cutting shears; chopping machines; colanders; cylinders, and all such machines, unless they are, in the opinion of the inspector, properly guarded.

9. Work near vats or stationary basins containing hot or corrosive materials or molten metal, or vats placed in the ground, or uncovered wells or reservoirs, so far as they present features of danger, unless they are inclosed by railings 90 centimeters [2.95 feet] high or otherwise adequately protected.

10. Work in places which are not equally well lighted during the whole work period, or in which the places where the children or women work can not be protected against the direct rays of the sun.

11. Work in places where use must be made of artificial light during the hours from 9 a. m. to 3 p. m. in order to obtain sufficient light, unless the peculiar state of the atmosphere necessitates the use of such light; where the kinds of work executed comprise embroidery, the preparing of diamonds and other precious stones, gold and silver work, engraving on metals or wood, the making of instruments, type-setting, mechanical knitting, sewing, drawing, stitching, and the making of watches and clocks, unless the light is of at least 15 candlepower at a distance of 1 meter [3.28 feet], or any other work requiring a good light, unless the light is of at least 10 candlepower at a distance of 1 meter [3.28 feet].

12. Work in places where there are boilers, receptacles, or other apparatus which contain compressed or liquefied gas, and which may explode, unless these apparatus offer a quintuple resistance against explosion, and can, if necessary, be subjected to an examination or test. These apparatus must also be so arranged that they can be made use of with safety, be kept always in good condition, and be never entirely filled with liquefied gas or exposed to the high heat of the sun or a fire.

ART. II. The employment of children under 16 years of age and women is also prohibited:

a. In places where (1) arsenic compounds are manufactured; (2) cyanides containing poison are prepared, employed, or given forth; (3) mercury or tin foil is employed or sublimates or materials containing mercury are prepared; (4) white lead, sugar of lead, minium, or materials containing chromates are prepared; (5) verdigris is prepared; (6) white phosphorus is used; (7) white zinc is prepared; and (8) where deleterious fumes are given forth, such as those from chemical compounds.

b. In places where the atmosphere is contaminated by powder or dust produced in (1) the making of brushes and brooms; (2) gilding in printing and lithographic establishments; (3) the carding of fibrous materials; (4) the grinding and sifting of lime, cement, stucco, and

chalk; (5) the slacking of lime; (6) type foundries and stereotype works; (7) typesetting; (8) rag sorting; (9) wool carding; (10) bark grinding; (11) cigar making; (12) dry polishing of metals, glass, and other substances; (13) spice grinding and sifting; (14) stonecutting; (15) the manufacture of straw packing; (16) felt making; and (17) the grinding, crushing, and hackling of flax and jute, unless the employer within 4 weeks after receiving a written and dated request from the competent inspector forwards to such officer a certificate from a physician that the physical constitution of the person under 16 years of age or woman whom it is proposed to employ is such that the work does not subject the person to any particular danger.

ART. III. Under no condition can children under 16 years of age or women be employed (1) in places mentioned under Art. II, *a*, unless, according to the opinion of the competent inspector, and if necessary after the advice of a physician has been taken, that no danger of poisoning exists, or if it exists that adequate means are taken to remove it; or (2) in places mentioned under Art. II, *b*, unless any powder injurious to the health that may be produced is as completely as possible expelled, or when this can not be done in a satisfactory manner, the employees are provided with effective respirators to prevent any injurious effects resulting to them.

ART. IV. It is furthermore provided that children under 16 years of age and women shall not be employed in the places mentioned under Art. II, *a*, and 3, 4, 5, 6, 7, 9, 10, 11, 12, and 13 of *b*, unless the rooms in which the work is carried on contain a volume of air equal to (1) at least 7 cubic meters [247.2 cubic feet] per employee when the height of the room is 3 meters [9.84 feet] or more; (2) at least that volume per employee in cubic meters which is expressed by the number obtained from the formula

$$L \text{ (air space)} = \frac{2.8 \times \text{height (in cm.)}}{\text{height (in cm.)} - 180 \text{ cm.}}$$

when the height of the room is 2.10 meters [6.89 feet] but less than 3 meters [9.84 feet] high; and (3) not less than 25 cubic meters [882.86 cubic feet] per employee when the height of the room is less than 2.10 meters [6.89 feet].

ART. V. The minister of the waterstaat, commerce, and industry may exempt specially designated establishments from the provisions of Art. IV 2 and 3.

ART. VI. It is furthermore provided that children under 16 years of age and women shall not be employed in the places mentioned under Art. II, *a*, and 2, 6, 7, and 8 of *b*, unless separate wash rooms for the two sexes are provided for the employees.

ART. VII. It is furthermore provided that children under 16 years of age and women shall not be employed in the places mentioned under Art. II, *a*, and 6, 7, and 11 of *b*, unless (1) these persons take their meals outside the workrooms; and (2) the floors of the rooms, other than those enumerated under 3 and 6 of *a*, are thoroughly cleaned at least once a week.

ART. VIII. It is prohibited to employ children under 16 years of age and women in the interior of mines.

ART. IX. It is prohibited to employ children under 16 years of age (1) in working independently either as stationary engineer or fireman or on a locomotive or steamer; (2) in the manufacture or use of explo-

sives, unless in the opinion of the inspector this can be done without danger to the employees; (3) in drawing, pushing, or carrying a load which is evidently too heavy for their strength; or (4) in the performance of dangerous acrobatic exercises.

ART. X. The employer can require the inspector to reduce to writing and date any order, instruction, or recommendation that he may make concerning the establishment of the former. The employer can appeal from the action of an inspector within 8 days to the minister charged with the execution of the present order.

Sections 5, 7, and 11 of the law of 1889, which relate specially to the hours during which women and children may be employed, their rest periods, etc., contain provisions authorizing the King to grant exemptions from the general restrictions in certain cases. In pursuance of this power a number of orders have been issued, the dates of which are December 9, 1889, October 30, 1890, October 17, 1891, June 10, 1892, and August 27, 1896. The orders permit Sunday and night work within certain limitations, in certain specified industries in the case of boys from 14 to 16 years of age. Night work between the hours of 7 and 10 p. m. is also permitted in cases for children from 12 to 14 years of age and women.

The effect of article 7 of the law of 1889, by which the labor of women on Sunday was absolutely prohibited, interfered very seriously with the butter and cheese industry of the Kingdom, in which some Sunday work, from the nature of the industry, was required. This led to the enactment of the amending law of December 31, 1896, by which a clause was inserted in the law providing that such work might be permitted provided the conditions to be set forth in a royal order were observed. To render effective this amendment, the Queen issued an order March 27, 1897, designating the kinds of work that might be performed by women over 16 years of age in cheese and butter factories and the conditions under which it must be performed. The provisions of this order follow:

In butter factories women over 16 years of age may be employed on Sunday in the operations of churning, washing, salting, and kneading butter under the following conditions: (1) The work must be part of the regular daily work of the woman, except that in cases of sickness she can be replaced by another woman; (2) during the period from March 1 to November 1 the work must be performed between the hours of 5 and 8 a. m. and 4 and 6.30 p. m., and during the period from November 1 to March 1 between 5 and 8 a. m., and (3) the woman thus employed must not on the same day perform any other work than that mentioned in the following paragraph.

In cheese factories women over 16 years of age may be employed in the filling of the basins with milk, the placing of the cheese in molds and its turning over in the molds, the placing of the cheese in cloth and the taking up of the borders, the rinsing of the cloths, and the cleaning of the articles of which use has been made in the work just mentioned, under the following conditions: (1) The work must be part of the regular daily work of the woman, except that in cases of sick-

ness she can be replaced by another woman; (2) the work must be performed between the hours of 8 and 11.30 a. m. and 1 and 2.30 p. m., and (3) the woman thus employed must not on the same day perform any other work than that mentioned in the preceding paragraph.

PREVENTION OF ACCIDENTS AND PROTECTION OF HEALTH OF EMPLOYEES.

As early as 1824 the operation of establishments presenting especially dangerous or unhealthy features, or having the character of nuisances, had been regulated by royal decree. The constitutionality of these decrees, though often attacked, was in general maintained by the courts. To improve the situation, however, a general law regarding such establishments was enacted June 2, 1875. This law has been more or less modified by subsequent legislation and royal decrees, the most important being the law of September 4, 1896, enacted for the purpose of bringing the provisions of the law of 1875 in harmony with those of the law of July 20, 1895, in relation to the protection of employees. It is unnecessary to give the provisions of these acts, as they relate only in an indirect way to the protection of employees, their main purpose being the prevention of nuisances and the protection of the public health and safety. It is sufficient to say that they designate the classes of establishments which must be subject to special regulation, and make their conduct dependent upon obtaining a special authorization from the Government. For the most part these authorizations are given by the communal authorities.

The law of 1889 and the orders issued in pursuance of it contained certain general provisions making it obligatory upon employers to take precautions for the protection of children under 16 years of age. The need for a law regarding this matter applicable to all classes of labor became more and more evident. By a law enacted January 19, 1890, the Government created a general commission to investigate labor conditions. The work of this commission extended over several years, and a very exhaustive investigation was made. The reports, which are very voluminous, constitute the most complete body of official information concerning labor problems in the Netherlands that is in existence.

The direct outcome of this investigation was the enactment of various laws. Among them the most important was that of July 20, 1895, concerning the safety of persons employed in dangerous establishments. This law and the decrees that have been issued in virtue of it constitute the natural complement of the law and decrees in relation to the employment of women and children. Together they cover the most important branches of protective factory legislation. Following is a condensed translation of the law:

1. The following places and work will be considered as factories

and workshops as regulated by this law: All places, open or closed, in which articles of any kind are made, altered, ornamented, or finished, or where articles of any material are prepared for sale or use, or where such articles undergo a remaking, provided that either use is made of a machine or furnace or 10 or more persons are employed. The law, however, does not apply to agricultural pursuits, horticulture, forestry, cattle raising, turf digging, shipping, or fishing, nor to government buildings, workshops, penal institutions, or military shops.

2. Whoever desires to erect or enlarge a factory or workshop as above defined must first submit to the inspector copies of the building plan.

3. The request for authorization to carry on the work must be accompanied by (1) a detailed description in duplicate of the place where it is proposed to erect the factory or workshop, and a statement in duplicate of the nature of the work it is intended to carry on, with a description of the power it is proposed to employ; (2) the ground plan of the building on a scale of at least 1 to 100, indicating the interior and exterior arrangement of the structure; (3) a detailed description in duplicate of the manner in which it is proposed to satisfy the requirement for the erection of factories as given below in section 6. Where necessary the petition must also be accompanied by drawings in duplicate of the elevation and cross section of the building on the scale of at least 1 to 100. The inspector must acknowledge receipt of these documents.

4. The inspector may demand such additional explanations as he considers necessary in order to act correctly upon the matter.

5. The inspector must act upon the petition within one month from its receipt. If unfavorable the reasons for the decision must be given. Copies of the documents above enumerated must be attached to the decision of the inspector.

6. The director of a factory or workshop must see that all regulations established by law or orders, whether relating to the whole establishment or a particular branch, must be strictly adhered to. These regulations will relate to the following points: (1) The provision of sufficient air space for each workman in taking account of the height of the workrooms; (2) proper ventilation; (3) lighting; (4) precautions against fire; (5) the provision of dressing and eating rooms; (6) the provision of privies. In the case of factories and workshops already in operation before the passage of this act the regulations may be made less strict than for those subsequently erected.

7. General orders will be issued making it the duty of directors of factories and workshops to see that means are taken to insure cleanliness, the maintenance of a proper temperature, the removal of injurious vapors, gases, and dust, and the protection of employees from injuries through machinery, gearing, electric conduits, acids, hot fluids or metals, explosions, etc. The general orders shall also determine the cases in which the inspectors may issue direct orders in relation to the time during which persons may remain in rooms in which unavoidably a very high or low temperature must be maintained, or noxious gases or dust is generated, and as to the provision of good drinking water. Every verbal or written order must state the time when it goes into force, and the employer can require the order to be made in writing.

8. It is the duty of the director of each factory and workshop to

keep posted in a conspicuous place in his establishment, where it can be easily read by the employees, a copy of the regulations made out by a public officer and signed by the director. He must also see that every employee permanently employed is furnished with a copy of these regulations within eight days after they are signed, or, in the case of new employees, upon entering the services of the establishment.

9. The enforcement of this law will be intrusted to inspectors and other officials, and their powers and specific duties will be determined by special orders.

10. These officials shall not be interested, either directly or indirectly, in any manufacturing or industrial enterprise.

11. The directors and managers of factories and workshops, as well as all other persons employed therein, must furnish the inspectors upon their request with any information concerning matters relating to the enforcement of the law.

12. The director must report all accidents within three days after their occurrence to the mayor of the commune in which the accidents occur, stating the results of the accidents. If the person injured returns to work within 48 hours no notice is required. The form of the notice will be fixed by the minister charged with the execution of the law. It is the duty of the mayor to forward the notice to the inspector of factories within 24 hours. The mayor must also investigate the causes and consequences of accidents and communicate the results to the inspector, who, if he deems best, can make a further investigation.

13. Within one month after the going into effect of this law, the director of each factory and workshop must report to the mayor of the commune in which the establishment is located the nature of the industry carried on, the kind of power used, the number of machines operated, the number of persons usually employed, the danger or damage that the establishment may cause which can not be abated without obtaining permission to make changes.

14. The mayor must send these reports to the inspector after they have been duly recorded.

15. The inspectors must make a detailed report of the result of their operations every two years to the minister charged with the execution of the law. These reports will be submitted either in their entirety or in abstract to the States-General.

16. The director of a factory or workshop can appeal from an order of an inspector within 8 days to the minister charged with the execution of the law.

The remaining sections of the law relate chiefly to the details of perfecting an appeal and the penalties that will be imposed for infractions of the law. These penalties consist of fines which may amount to as much as 300 florins [\$120.60] and imprisonment for not more than 3 months. The inspectors are given the usual powers of entering and inspecting establishments, and are required to keep secret any trade secrets they may learn. Establishments already in operation upon the passage of the law may be given time in which to conform to the provisions of the laws and orders.

In case particular circumstances of a local nature should require regulations not provided for in the general industrial regulations, they may be issued, subject to the approval of the King, by the municipal council.

The foregoing law, it will be observed, but lays down a general scheme for the regulation of factory and workshop labor. The determination of the particular conditions to be observed for the protection of employees was left to royal decrees to be issued in pursuance of its provisions. A decree was accordingly issued December 7, 1896, which details minutely the measures of precaution that must be taken. Its provisions may be summarized as follows:

Article 1 divides the working rooms of factories and workshops into two classes, A and B. The first comprises all rooms where use is made of poisonous materials, such as compounds of arsenic, cyanide, quicksilver, etc., or where injurious gases or vapors are generated, such as those from ammonia, chlorine, arsenic, etc. The second class comprises all localities where the air may be vitiated by injurious dust, such as is formed in brush making, in carding rooms, cement works, etc., and also all other working rooms not included in the first class.

Articles 2 to 8 treat of the necessary air space for each working-man in the various rooms computed according to the height of the room. From a table appended to the text it appears that in rooms having a height of 3 meters [9.84 feet] or more a free air space of 7 cubic meters [247.2 cubic feet] per employee is required; in rooms of 2.10 meters [6.89 feet] high, 16 cubic meters [565.03 cubic feet] are required, while in rooms of less height than that last mentioned from 20 to 25 cubic meters [706.29 to 882.86 cubic feet] must be provided for.

Article 9 requires the provision of proper means for ventilation without creating drafts. The amount of carbonic-acid gas should not be allowed to exceed from 4 to 6 per cent.

Article 10 makes it obligatory upon directors of factories and workshops to see that sufficient light is provided. It requires a strength of light equal to at least 15 candlepower at a distance of 1 meter [3.28 feet] for the trades requiring careful work, such as engraving, drawing, etc., and of 10 candlepower in other trades.

Articles 11 and 12 contain an enumeration of the precautionary measures that must be taken against fire. They specify the parts of the buildings that must be of fireproof materials; the distance that open lights and fires must be from inflammable materials; the precautions to be taken in the installation of electrical appliances, etc. The width of stairways is fixed at a minimum of from 1.20 meters to 1.50 meters [3.94 to 4.92 feet]. The materials used in their construction must be fireproof and the doors leading to them must be of adequate width and open outward.

Articles 13 and 14 call for the provision of separate dressing rooms for the two sexes and prohibit the taking of meals in localities where materials enumerated under Class A are being manufactured. In these cases a separate room apart from the main building must be provided in which the employees can take their meals.

Article 15 treats of the ordinary precautionary measures that must be observed in disposition of privies and urinals.

Article 16 relates to the measures that must be taken to insure cleanly conditions in factories. It makes obligatory such hygienic steps as the dusting and scrubbing of floors, the whitewashing of walls, etc.

It also provides that convenient wash rooms must be supplied for the use of employees.

Article 17 enjoins the maintenance of an equable temperature.

Article 18 provides for the installation of appliances by which noxious vapors, gases, or dust will be completely carried off.

Article 19 specifies in great detail the measures that must be taken to prevent accidents that may happen through engines, machinery, electricity, molten metals, or explosives. It details the parts of machinery that must be inclosed or incased, the particular measures that must be taken to safeguard fly wheels, belting, rapidly revolving grindstones, etc., and the making secure of elevators, etc.

Article 20 regulates the time during which it shall be permissible for employees to remain in rooms when there is a high temperature (above 104° F.) or in rooms containing injurious vapors or dust.

Article 21 requires that wholesome drinking water must be supplied for the use of employees.

A royal decree issued December 23, 1896, divides the Kingdom into six inspection districts, and provides that each one of these districts shall be in charge of an inspector, aided by one or more assistant inspectors. The decree also states in a detailed manner the duties and powers of the inspectors, which are in general similar to those usually conferred upon such officers.

Most, if not all, of the European nations with a fairly well developed labor code have found it desirable to subject the industry of match making to special regulations. Holland, in pursuance of this policy, issued a special decree, June 24, 1898, regarding the employment of women and children in the manufacture of phosphorus matches, which is in the nature of a supplement to the general decree of January 21, 1897, that has been given. This decree, which is a brief one, is as follows:

1. It is prohibited to employ children under 16 years of age or women in factories or places where white phosphorus paste is mixed or prepared.

2. It is also prohibited to employ these classes in places used for the dipping of matches or their drying, boxing, or packing where use is made of a paste containing more than 5 per cent of white phosphorus.

3. Nor can these persons be employed in places described in 2, even though the paste employed contains only 5 per cent or less white phosphorus, except under the following conditions: (1) Unless the employer is in possession of a medical certificate regarding each woman and each child under 16 years of age, the date of which is not more than 2 months old, stating that the person referred to may be employed in such work without danger to his or her health; (2) that these certificates are shown to the factory inspector whenever he requests to see them; (3) that the woman or child is declared to be fit for such work by a physician duly authorized by the minister of the waterstaat, commerce, and industry, if this officer judges this to be necessary; (4) that the employer places at the disposition of the employees a sufficient number of utensils for rinsing the mouth and washing the face and hands, as determined and designated by the

competent inspector, and (5) that the employer, whenever requested by the inspector, furnishes a sample of the paste employed or the matches made, as may be selected by the inspector, after the sample has been duly packed and sealed by the employer in the presence of the inspector.

ARBITRATION TRIBUNALS: COUNCILS OF LABOR.

The question of creating councils of labor somewhat after the Belgian model was first proposed in the Dutch Parliament in 1892. Two measures having that purpose in view were introduced in the lower house in that year. They were referred to committees, and a new bill based upon them was agreed upon by the authors of the first two bills. No decided action was taken in regard to this or other bills introduced in the years immediately following. On October 10, 1895, however, the Government itself introduced a bill, which, after suffering a number of modifications, was passed by both houses and became the law of May 2, 1897.

The system of labor councils, the creation of which is authorized by this law, is identical in aim to that of the Belgian councils, and presents a number of similarities, as regards the details of its organization and powers, to those councils.

Upon the recommendation of the minister of the waterstaat, commerce, and industry, the King may by decree create a council of labor wherever the utility of such a body is demonstrated and its organization is believed to be feasible. The council may be for one or a number of different industries and may have as its district a single or several communes.

A council may be dissolved or suppressed in the same way. A council will be dissolved when, in spite of repeated warnings given it by the ministers, it continues to violate the regulations adopted for its government, the provisions of the present law, or the decree issued in virtue of the latter. The order which pronounces the dissolution must provide for the constitution of a new council within two months. A council will be suppressed when the need for it no longer exists, when it is unable to maintain an effective organization, or when it continues to act after its dissolution has been ordered.

The purpose of councils of labor is to advance the mutual interests of employers and employees by having these two classes act together; in securing information concerning labor conditions; in giving advice to the communal, provincial, and central authorities, either upon the demand of these officials, or upon their own initiative, concerning any matter relating to labor; in giving advice and formulating agreements and regulations as requested by interested parties; and, finally, in attempting to adjust disputes concerning labor conditions and, when necessary, in arbitrating between the parties.

Each council must be composed of an equal number of employers and employees selected from among the persons exercising the industries for which the council is created. Each class selects its own representatives. The determination of what classes of workers should be assigned to each of these two categories—employers and employees—was one of the most difficult with which the framers of the law had to contend. The simple division of the persons engaged in industry into work givers and work receivers would result in the inclusion in the latter class of superintendents, overseers, engineers, etc., whose interests are often more identified with those of the employers than of the employees. To avoid this difficulty the law provides that the order creating a council may provide that certain of these higher officials shall be considered, for purposes of this law, as belonging to the class of employers. It was also feared that the foremen, assistant foremen, or other workingmen in authority over workingmen, might abuse such authority by causing themselves to be elected to the councils by the workingmen against the real desires of the latter. As such a result would defeat the whole purpose of the councils, whose effectiveness depends upon the hearty good will of the parties interested, it was provided that these classes might, when it seemed desirable, be excluded from the class of employees by the decree creating or modifying the councils.

Those persons are considered as employers for purposes of the law who are the heads or directors of industrial establishments employing at least one person over 20 years of age for wages, and all those who exercise a control over the management of affairs by the heads or directors, as well as those who, employed in the industry, are by reason of the character of their occupations assimilated with the class of employers by the decree creating or modifying the council.

Those persons are considered as employees who work for wages in an industry, with the exception of those who are specially excluded by the decree creating or modifying the councils on account of the authority which they exercise over other persons and of the character of their work.

The right to vote for members of a council belongs to those persons of both sexes who are inhabitants of the Kingdom, of the Dutch nationality, are at least 25 years of age, and have been engaged either as employers or employees in one of the industries represented in the council either during the past calendar year or during such part of that year, in the case of industries which are not continuously prosecuted, as may be determined by official decree. Those persons, however, are excluded from the right of suffrage who, by virtue of a judicial decision, have been deprived of the right to vote or be elected to a public office, or to exercise any trade, or have been deprived of the right freely to administer their own property, as long as such incapacity exists.

Two lists of electors, one for the employers and the other for the employees, will be prepared for each council in each commune. Electors who are in prison can not vote. These lists are prepared by the communal authorities. The electors vote in the commune in which they are registered. Disputes concerning the right to vote or to be elected are decided by the permanent deputations in the first instance, and by the King upon appeal. The details of conducting the elections are determined by official decrees. Employers must allow their employees at least 2 hours during the hours for voting in which to cast their ballots, and also to post up in their establishments during 2 working days before and during the day on which the election takes place, a notice informing the employees of such election, and indicating the hours during which they can absent themselves to vote.

Only those persons, by which are meant both men and women, are eligible to election as members of a council who are inhabitants of the Kingdom, of Dutch nationality, at least 30 years of age, and have been engaged as employer or employee in one of the industries embraced in the council, either during the last calendar year or, dating from the day of their majority, during 3 years of the 10 years immediately preceding their election. An official order will determine, in the case of industries which are not carried on during the whole year, the part of the year which will be considered as a whole year. Those persons, however, are excluded from the right of being members who, by virtue of a judicial decision, have been deprived of the right to vote or be elected to a public office, or to exercise any trade, or have been deprived of the right freely to administer their own property, or have been condemned to imprisonment for as long as 6 months, as long as such incapacity or imprisonment lasts.

Members are elected by the persons whose names figure on the electoral lists. On the first ballot only those candidates are declared elected who receive a majority of the votes cast. If the number receiving this majority is superior to the number of places vacant, those who receive the largest number of votes, and in case of a tie the eldest, or where the two persons are of the same age the one selected by lot will be declared elected.

If all the places are not filled on the first ballot by candidates receiving a majority of the votes cast, the president of the electoral board must immediately prepare a new list of candidates, consisting of those persons, to the number of twice the number of places vacant, who received the largest number of votes on the first ballot. The second ballot must take place within the 14 days following the first voting.

Members are elected for terms of 5 years and are reeligible. The whole council is elected at the same time. No person can be a member of more than one council. The acceptance of a nomination while already a member of another council acts as a resignation from the

position already occupied. The president of the electoral board must immediately inform all successful candidates of their election by registered letter. If a person is elected to more than one council or by both employers and employees he must make an election as to which place he will accept.

Members can resign at any time. If a council loses so many of its members, either by resignations, deaths, or otherwise, that it can not effectively perform its duties, a special election may be ordered by the minister of the waterstaat, commerce, and industry. Members thus elected retire at the same time as those elected at the regular elections.

Each council must formulate its own constitution, which will not become effective until it has been approved by a royal decree. No changes must be made in the constitution by the Government except as are necessary to make it conform to legal requirements.

The governing board of a council consists of a president and 2 members. The employer and employee members of the council, must each select one of their number to serve as president, and these two persons then serve alternate six-month terms. The other 2 members are in the same way selected, one by the employers and the other by the employees. A person selected as a presiding officer, while not serving as such, may attend the meetings of the governing board but has only a consultative voice in the proceedings. If the president is absent from a meeting the other president replaces him, and if both are absent the eldest of the two members of the board. Each council must also elect a secretary from a list of two persons submitted to it by the governing board. This officer is entitled to a remuneration for his office expenses, the amount of which will be fixed by a royal decree.

The governing board must meet as often as the president judges necessary or its assembling is requested in writing by one of the members. The reasons for the request must be stated in the latter case. The full council must meet at least four times each year, and at any other time when the president deems it necessary or the two other members of the governing board or one-third of the members of the council request it in writing, stating the reasons for such request. In this case the president must convoke the council within 14 days after he receives notice of the request.

The arbitration or conciliation of disputes between employers and employees constitutes, probably, the most important function of these councils. Regarding this point the law provides that whenever a dispute arises or threatens to arise between persons engaged in an industry in the commune over which a council of labor has jurisdiction, the parties interested, or either of them, may request the intervention of a committee of conciliation. This request must be in writing, give the cause which has led to the dispute, and must be according to a fixed

form in order that only that information which is absolutely essential may be given, and unnecessary and irritating details be avoided.

In case the dispute arises or threatens to arise in an industry which is not represented in a council in its commune, the appeal for conciliation or arbitration can be made to any council of the commune, or if there is none, to a council having jurisdiction in a neighboring commune.

Power is also given to the mayor of a commune or the governor of a province to request the good offices of a council of labor for the prevention or settlement of a dispute, in the same way as may be done by the parties to the dispute. In case two different councils are appealed to, the mayor of the commune in which the dispute arises will decide which shall take action.

Immediately upon receipt of the request for its intervention the council must, through its governing board, attempt to bring about an amicable settlement of the matter. If it is unable to do so, the matter must be immediately brought before the council itself. The council must then, if it considers the matter, or where its intervention will be of use, appoint a committee on conciliation to be composed of a president who must not be a member of the labor council, and an equal number of employer and employee members of the council. The secretary of the council will act as the secretary of the conciliation committee.

The president of the committee must seek to make the parties agree not to leave work, or to dismiss an employee interested in the dispute during the pendency of conciliation or arbitration proceedings. The proposition to make such an agreement a condition precedent to any action on the part of the councils was rejected by the Parliament, owing to the fear that such a condition might prevent parties from seeking the intervention of the councils.

The conciliation committee must meet as often as its president deems necessary. After examining the dispute for the settlement of which it was created, it must render its opinion in writing. If the committee is not unanimous, the minority can require that their opinion shall be included in the report. This report may be made public in its entirety or in part. As the committee has no power to enforce its decisions, this appeal to public opinion through the publication of its opinion constitutes the chief dependence of the committee that its decision will be obeyed.

It is interesting to note that the provisions of the code of civil procedure are modified to the extent that if the parties agree to submit the matter to arbitration, women may be appointed as arbitrators.

The meetings of the councils proper or their governing boards are held with closed doors. Members must be duly notified of all meetings, and the subjects that are to be considered. Other questions must not be considered unless at least two-thirds of all the members

are present. The council may impose secrecy as to its proceedings upon its members. Whenever a vote is taken an equal number of employer and employee members must participate. In case there is an unequal number of the two classes present, a sufficient number of the youngest members of the more numerous class must abstain from voting to insure a parity in number of the two classes. The persons thus abstaining, however, have a consultative voice. Definite action can in no case be taken unless half the members of each class of members are present.

Each council must prepare an annual report in the form prescribed by the ministers of the waterstaat, commerce, and industry concerning its work, which must be sent to the ministers just mentioned. This report, as made, or in abridged form, will be transmitted to the Parliament. An official order will determine what other kinds of information must be collected by the councils and forwarded to the Government.

The commune in which a council has its headquarters must, upon the request of that body, furnish it gratuitously with a room suitable for its meetings, and heat and light it when necessary. The members and secretary of the council, as well as the president of the conciliation committee, are entitled to be reimbursed for such traveling expenses as they incur in performing their duties, and also to a compensation for taking part in the meetings. These payments, as well as those necessitated by the printing of the reports and office expenses, will be made by the State. Election expenses will be defrayed by the communes.

ITALY.

Efforts to regulate the employment of children were made as early as 1843. On December 7 of that year a royal order was issued which prohibited the employment of children under 9 years of age in large industrial establishments and of children under 14 years of age in industries which were dangerous to health or life in the districts of Venice and Lombardy. The order also contained certain provisions regarding night work, hours of labor, etc. The lack of officials specially appointed to enforce this law soon led to its becoming practically a dead letter.

For over 40 years no further advance was made in the enactment of general factory legislation, with the exception of the law of November 20, 1859, in relation to mines, which contained a provision prohibiting the employment of children under 10 years of age below ground. On February 11, 1886, however, a new law was passed regarding the employment of children, which repealed the act of 1843 and constitutes the law now in force regarding this subject.

In the meantime little or no progress has been made in the direction of the regulation of industrial work with a view to the protection of

the health of employees and the prevention of accidents. The only important provisions of law in relation to this subject now in force are three sections of the law of March 17, 1898, concerning the compulsory insurance of workmen against accidents.

PREVENTION OF ACCIDENTS.

Following are the three sections of the law of March 17, 1898, relating to the prevention of accidents:

The directors of enterprises, industries, and constructions indicated in article 1 (*a*) must carry out all the measures prescribed by the laws and regulations for the prevention of accidents and the protection of the lives and limbs of employees. In the absence of special regulations imposing penalties upon persons breaking the law, such persons will be punished in conformity to the provisions of article 434 of the penal code, without prejudice to the civil and penal responsibility that may arise in the case of accidents.

The minister of agriculture, industry, and commerce, after considering the proposals of directors of industrial enterprises, made either individually or collectively, as well as the advice of technical governmental councils, shall prepare regulations as mentioned in the preceding paragraph. These regulations must be approved by royal decree after having been submitted to the examination of the council of state, and can be modified according to the rules required for their elaboration. Special regulations can, in the same manner, be promulgated for particular establishments or groups of establishments of the same nature upon recommendations from the heads of these establishments.

The minister of agriculture, industry, and commerce must supervise the execution of the preventive regulations prescribed by special laws or orders relative to industrial enterprises mentioned in the preceding paragraphs, as well as the obligations imposed by the present law. In order to secure the inspection of establishments for the purpose of supervising the enforcement of the law, the Government can have recourse not only to State officials, but also to the technical employees of associations for the prevention of accidents and mutual insurance organizations. The inspectors charged with the duty of visiting mills and factories can inform themselves concerning the nature of the insurance contract existing. They must abstain, however, as far as possible from inquiring into the methods of manufacture which it is desired to keep secret, and they must not disclose any secrets coming to their knowledge, under penalty of a fine of from 500 to 1,000 lire (\$96.50 to \$193), without prejudice to the payment of damages and the application of penalties provided for by article 298 of the penal code in the case of fraudulent revelations. Inspectors and delegates are prohibited from engaging, on their own account or for another, in any enter-

a Mines, quarries, and peat extraction; the erection of buildings; gas, electric light, and telephone works; establishments making or employing explosives; arsenals and marine construction shops; the following works where more than 5 persons are employed—construction or exploitation of railroads; river, canal, and lake transportation; mechanical tramways; draining, construction, and repairing of harbors, canals, and ditches; construction and repairing of bridges, tunnels, and ordinary national and provincial roads; and industrial establishments in which use is made of mechanical motors or animal power when the number of workmen employed exceeds 5.

prise, industry, or construction work, or of being interested or employed in any such work as an engineer, chemist, physician, or mechanician.

It is evident that in virtue of these powers thus conferred upon the Government it will be possible for the latter to provide, in time, detailed regulations concerning the protection of the lives and health of employees and secure their enforcement.

EMPLOYMENT OF CHILDREN.

The law of 1886 relates exclusively to the subject of the employment of children, and only lays down in the most general way the conditions under which children shall be permitted to work. It provides, however, that the King shall determine by royal order the detailed provisions that must be observed. Such an order was duly issued September 17, 1886, and for all practical purposes constitutes a part of the law. In the following pages are given the essential features of this law and order. The law, which is very brief, reads as follows:

1. Children of either sex who have not attained the age of 9 years must not be permitted to work in industrial establishments, quarries, or mines, and children who have not attained the age of 10 years must not be permitted to work below ground.

Children from 9 to 15 years of age may only be permitted to work when they are in possession of certificates from physicians duly authorized to grant them by the public health councils of the district, stating that they are in good health and fitted to perform the work for which they are intended.

2. Children of either sex who have not completed their fifteenth year must not be employed in dangerous or unhealthy work except within the limits and with the precautions set forth in a royal decree which will determine, after the superior councils of health and commerce have been heard, the industries that will be deemed to be dangerous or unhealthy.

3. Children who have completed their ninth but not their twelfth year must not be employed more than eight hours on any one day.

4. Whoever violates any of the provisions of the present law will be punished by a fine of from 50 to 100 lire (\$9.65 to \$19.30) for each child permitted to work contrary to law. In case of a second offense the fine can be doubled. When the person who has caused the employment of the child can not be discovered the fine will be imposed upon the manager, director, or contractor operating the establishment, quarry, or mine.

5. The enforcement of the present law is intrusted to the minister of agriculture, industry, and commerce, who must act in accord with the minister of the interior. The mining engineers and inspectors of factories must exercise a supervision over the application of the law and report all violations of its provisions. These reports must be transmitted to the prefects of the provinces, who, after the provincial sanitary councils have been heard, will bring the matter before the courts.

6. The temporary provisions will be determined by the royal order which will be promulgated, after the superior councils of health and commerce have been heard, for the purpose of putting the law in force.

7. The present law will enter in force 6 months after its publication in the Official Gazette.

The royal order issued September 17, 1886, as has been said, enters more in detail into the determination of the exact conditions that must be observed in employing children and the methods of administering the law. Its provisions follow:

By an industrial establishment, as understood by the law of February 11, 1886, is meant any place where manual labor is executed by means of the use of mechanical motors, no matter what the number of persons employed may be, or any place whether use is made of a mechanical motor or not, where at least 10 persons are employed in a permanent manner.

Whoever undertakes the conduct of an industrial establishment or the exploitation of a mine or quarry where children under 15 years of age are employed must, in accordance with the terms of the law and in virtue of the supervision established by it, make a declaration within a month to the local chamber of commerce of the district, setting forth the following information: (1) The place or places where the shop, office, or store is located; (2) the purpose of the enterprise; (3) whether the work is carried on by hand labor or by the use of a mechanical motor, and (4) the number of employees and the kinds of motors used and their power. In communes in which there is no chamber of commerce the declaration must be made to the mayor. The declaration must be immediately transmitted by the chamber of commerce or mayor to the minister of agriculture, industry, and commerce.

All children 9 years of age, but less than 15 years of age, intending to enter an industrial establishment, mine, or quarry, must first procure from the mayor of the commune where they reside pass books in which must be entered the dates of their birth, their condition of health, and their ability for work according to a medical examination; the names and addresses of the persons exercising authority over them; an indication as to whether they can read and write, and whether they have been vaccinated and revaccinated.

The directors and managers of industrial enterprises, mines, and quarries, before admitting to their works children under 15 years of age, must obtain from them their pass books, which they must preserve as long as the children remain in their employ. A register must be kept of all children under 15 years of age employed in the establishment and notice must be posted at the entrance or inside of each establishment, where it can be easily read, showing the hours of labor of the children there employed. Copies of the law and of the present order must also be posted at the same place.

Within one month from the publication of the present order the local sanitary councils must prepare a list of the physicians who are qualified to make the physical examinations mentioned above. This list shall be subject to annual revisions.

The examining physician must state in the certificate of physical

aptitude that he has given the child a careful examination and that he is satisfied that the child's health and physical strength is such that it can perform the work desired to be undertaken without danger to its development. The nature of this work must be clearly indicated in the certificate. The certificate must be procured in the commune where the child resides.

In execution of article 2 of the law a number of industries are declared to be of such a dangerous or unhealthy character that children under 15 years of age must not be employed in them. Another list gives those dangerous and unhealthy industries in which children from 9 to 15 years of age can be employed, subject to the conditions given in the order, and for not more than 8 hours of actual labor per day. A decree of April 8, 1888, and another of March 1, 1900, have slightly modified these lists of industries. These decrees were issued in virtue of an express provision of the order that the lists could be added to or changed by decrees issued upon the advice of the superior council of hygiene, the council of state, and the council of industry and commerce.

Work performed at night will be considered as unhealthy work in the sense of article 2 of the law. In accordance with this rule, and subject to the provisions of the preceding paragraph, children under 12 years of age must not be employed at night, and children from 12 to 15 years of age must not be employed more than 6 hours at night. In industrial establishments where the work, for technical or economical reasons, must be continuously prosecuted, the minister of agriculture, industry, and commerce can, upon the advice of the superior council of hygiene and the council of industry and commerce, permit the employment of children under 12 years of age at night for not more than 6 hours.

Children must not be employed in tending motors or in cleaning machinery or means of transmitting power while they are in motion.

Directors and foremen in industrial establishments, mines, and quarries must take every possible precaution for the protection of the lives and health of children.

The hours of work of children must be broken by a period of rest for meals, the duration of which must be at least one hour when the working period exceeds 6 hours. Children must not take their meals nor remain during the rest period in places where dangerous or unhealthy work as comprehended in the preceding sections is being performed.

The mining engineers and inspectors of factories to whom the execution of the present law is intrusted shall have the right to enter all establishments during working hours, and all places other than those used as dwellings attached to such establishments, and to question all managers, foremen, workingmen, and generally all persons found in such places. They shall also have the right to examine the registers, pass books, and notices mentioned in preceding paragraphs, as well as the factory rules when there are such. If any opposition is met with they can call upon the police authorities.

If the mining engineers or factory inspectors have serious doubts concerning the physical qualifications of a child for the performance of the work intrusted to it, they can order it to be examined by one of the duly authorized physicians, and if it is shown to be unfitted for the work or suffering from a contagious disease, prohibit it from being further employed. If the result of the examination is contrary to that

shown in the certificate, by virtue of which the employment of the child was permitted, the inspectors must refer the matter to the local council of health.

Mining engineers and inspectors of factories in visiting establishments must identify themselves by presenting their official cards which are furnished them by the competent minister.

Mining engineers and factory inspectors must make reports of all infractions of the law or the present order that are discovered by them, in which must be stated with clearness and precision the circumstances of the case and all the information that may be required to enlighten the magistrates before whom the matter is brought. The report must be drawn up in the presence of the director of the establishment, and must be signed by such director, the inspector, and the local peace officer if one has been called in. If the director refuses to sign his refusal must be noted in the report with a statement of the reasons given for the refusal. These reports of infractions of the law must be transmitted to the prefect, who, after referring them to the sanitary council, must send them to the judicial officers.

Infractions of the law or order are punished by fines.

In the month of March of each year the minister of agriculture, industry, and commerce must present to the chamber of deputies a report showing the operations of the inspection service during the preceding year. This report must contain: (1) A report of the inspections made during the year, the conditions under which the law has been applied, the penalties imposed, a list of the persons violating the law, etc.; (2) a statement of the respects in which the law can be easily violated, and the proper means for preventing such abuses; (3) a statement of the respects in which the enforcement of the law is insufficiently assured, and the proper steps that should be taken to remedy these defects; (4) a list of the industries in respect to which the application of the restrictions contained in the law is not justified, and the means that should be taken to harmonize the protection of children with the interests of these industries, and (5) generally all statistical and other information that can be of assistance in making known the condition of affairs and furnishing the material upon which to introduce improvements in the law.^(a)

STRIKES.

The penal code of 1859 declared that a strike was a punishable offense. It at the same time established a great inequality between employers and employees, by providing that in the case of the former, the act of combining is only punishable if undertaken for the purpose of reducing wages or of unjustly and oppressively imposing conditions of employment upon their employees. In the case of the employees the mere act of combining for the purpose of making a demand constituted a punishable offense. This inequality was corrected by the new criminal code, which went into force January 1, 1890. Instead

^a M. Romolo Broglio d'Ajano reports in his article "Factory legislation for the protection of women and children in Italy," *Journal of Political Economy*, June, 1896, that, in spite of this order, but two such reports, one in 1890 and the other in 1893, had been presented to the chamber of deputies.

of making the strike itself the offense, the law now punishes only the use of force or threats in connection with such action. Italy has thus taken the same position on this subject as that of most industrial nations. Following are the provisions of the penal code relating to this subject:

Whoever by means of violence or menaces restrains or impedes in any way the liberty of industry or of commerce shall be punished by imprisonment for not exceeding 20 months and by a fine of from 100 to 3,000 lire [\$19.30 to \$579].

Whoever by violence or menaces occasions or causes to continue a cessation or suspension of labor, in order to impose either on the workmen or on the employers or contractors a diminution or increase of wages, or conditions differing from those previously agreed upon, shall be punished by imprisonment not exceeding 20 months.

Leaders in the offenses above enumerated are liable to terms of imprisonment varying from 3 months to 3 years and to a fine of from 500 to 5,000 lire [\$96.50 to \$965].

NORWAY.

In Norway a general order of May 16, 1860, providing for the creation of a public health commission, contained certain provisions regarding the ventilation of buildings that applied to factories. Another order, March 14, 1874, provided that where any industry presented unusual danger either to the public or to the employees the authorities could make special regulations to lessen the danger. These provisions, as may be judged, were of relatively little importance. In 1885 a general commission was appointed to investigate the whole subject of the need for special labor legislation. The result of the inquiry of this body, which extended over a number of years, was the formulation of a bill which, after considerable discussion and some modification, became the law of June 27, 1892, concerning the inspection and regulation of labor in factories.

This law is sufficiently comprehensive almost to warrant its designation as a general factory act. It contains provisions concerning the employment of women and children, Sunday work, the payment of wages, the protection of the health and lives of employees, etc. Following is a statement of the provisions of this law:

All industrial establishments which employ at the same time and in a regular manner a greater or less number of employees, all trades of an industrial nature, the exploitation of mines, shops for the treatment of metals, foundries, and other establishments for the extraction or transformation of mineral matters are subject to the provisions of the present law. In cases of doubt the inspectors provided for by the present law will decide whether or not an establishment should be considered as subject to the law.

Within eight days after the going into force of the law, or the beginning of operations, each proprietor of an establishment subject

to its provisions must make a written declaration to the inspector charged with the supervision of his works, showing the nature of the industry and the number of workmen employed, classified according to the age periods mentioned in the law.

Whoever intends to establish or operate an establishment of the nature above described or to make any change in an establishment already in existence has the right, upon duly notifying the inspector and submitting plans showing the arrangement and interior construction of his factory, to learn from that official if there are any observations to be made concerning the proposed work in respect to the manner in which the law is complied with.

Workrooms and their equipment must be arranged and maintained so that the health and lives of employees are protected in as effective a manner as possible.

There must be provided, as far as circumstances will permit, stairways and exits easy of access and of use in the case of a fire or panic of any kind, in sufficient number, according to the number of employees. Where he deems it necessary, the inspector can require the proprietor to provide special safety devices. He can in the same way require the erection of lightning rods.

Passages through which employees move about in factories with machinery must be of a height and breadth sufficient to prevent workmen who tend or pass the machines from being injured by the parts in motion, when ordinary prudence is exercised.

Workshops must be sufficiently lighted either by the sun or by an artificial light so that all the moving parts of machinery which may present features of danger to workmen, when in motion, can be plainly seen. In shops where inflammable gas, vapors, or dust exist or are generated all necessary precautions must be taken in providing artificial light. Wherever the nature of the work or industry is such as to permit it, the workrooms must be properly heated.

The number of persons employed in a workroom must be in proportion to the size of the room and the place occupied by machinery, materials, etc. Rooms must be properly ventilated by suitable measures, and if necessary by mechanical means, so as to avoid injurious powders, gases, or vapors, bad odors, and excessive heat. The means of ventilation must be proportionate to the number of employees. Due precautions, either in the way of ventilation or isolation of the work, must also be taken to prevent any injurious gases, powders, etc., that may be generated in one room from being carried to other rooms.

Only those persons employed in rooms in which injurious substances are prepared or generated must be allowed to have access to such rooms.

Workrooms must, as far as circumstances will permit, be regularly cleaned. In particular the parts of floors near machinery and the recesses in which the moving parts of motors move must be kept clean, so that the accumulation of oil will not render them slippery. Where necessary the partitions and ceilings must be suitably white-washed, or if they are oil painted they must be kept clean by washing.

A place must be provided either within the establishment or in its immediate neighborhood in which the workmen can heat their food, and when the temperature is such as to render it necessary a suitably heated room in which they can eat their meals.

The boilers and tubes subject to steam pressure must be made, installed, and maintained in such a way as to be safe. They must be inspected before and after their installation according to the regulations to be issued by the King. Notices prepared by the competent minister must be posted wherever use is made of boilers, showing the rules that must be observed. If necessary, the inspector can require that the person in charge of a boiler shall be in possession of a certificate attesting his capacity.

Machines, including motors and means of transmitting power, are subject to the following special provisions: (1) Machines, parts of machines, etc., which present any feature of danger to employees must be carefully inclosed or covered; (2) water wheels, turbines, and other water motors must be properly inclosed, and guards placed in the mill race at proper places to prevent accidents; (3) motors must not be started until a signal, which can be distinctly heard by workmen in the rooms containing the machinery operated by the motors, has been given; (4) in all rooms containing machinery operated by a motor and not provided with means by which it can be stopped independently of the motor, means must be provided for communicating directly with the motor room; (5) when the same motor operates a number of independent machines, the means of transmitting the power must be so arranged that each machine can be stopped without stopping the motor.

Stairway and hoist openings, the entrance to mine shafts, large reservoirs, water courses, etc., must be inclosed by railings, where necessary to protect the employees, as far as the nature of the work performed will permit.

It is the duty of the inspectors to determine, according to the nature of the work and the particular circumstances of each case, the particular measures that will be considered as satisfying the foregoing requirements. When necessary they can grant exemptions from the requirements.

The employer must immediately notify the inspector in writing of every case where an employee is injured by an accident, so that he will probably be unable to return to work in eight days, indicating the cause and gravity of the injury. The inspector must immediately investigate the causes and the results of accidents reported to him.

Children under 12 years of age must not be employed in establishments coming under this law.

Children from 12 to 14 years of age shall only be employed when they are in possession of a certificate from a physician stating that their health is not such as to render them unfit for the work they are intended to perform, and have received the permission of the inspection authorities. They must not be employed more than 6 hours a day, and their work must consist of light tasks that are not injurious to their health and do not tend to retard their growth. The certificate will be delivered by the physician of the canton, who is entitled to receive 50 öre [13½ cents] for it, to be paid by the employer.

Young persons from 14 to 18 years of age must not be employed more than 10 hours per day; and those between the ages of 14 and 16 years must only be employed in light work which is not injurious to their health and does not interfere with their growth.

Children and young persons under 18 years of age must have in the morning and in the afternoon an intermission of at least ¼ hour after,

at the most, 4½ hours of work. Young persons must in addition have an interval of rest of at least one hour's duration after dinner when their hours of work exceed 8 per day. During meal hours children and young persons must not be permitted to work or to remain in the workrooms unless the appliances of production there made use of are completely at rest, or unless the inspectors specially authorize their remaining there.

Children and young persons under 18 years of age must not be allowed to work before 6 a. m. or after 8 p. m.

Children or young persons who have not completed their obligatory school requirements must not be employed during the hours intended for school instruction nor during the hours immediately preceding this time. Employers must procure for each child employed by them the certificate required by article 16 of the law of June 26, 1889, concerning primary schools in the country, and by article 18 of the law of the same date concerning primary schools in the cities. The school administration can, where it deems it advisable in order that a child may receive the proper amount of instruction, order the hours of labor to be more restricted than as provided in the present law.

Women must not be allowed to work during the 4 weeks following their confinement. This prohibition must be extended to 6 weeks unless the woman produces a certificate from a physician stating that she can perform her work without detriment to her health.

Women and children must not be employed below ground in mines and other similar establishments.

Women and children must not be employed in the cleaning or oiling of machinery or in visiting the recesses in which machinery moves while the latter is in motion, nor in the changing of belts, pulleys, etc., while they are in motion, unless there is absolutely no danger.

Young persons under 18 years of age must not be employed to attend to steam boilers or machines requiring the exercise of great precautions.

An employer must not engage a child or young person under 16 years of age until he has assured himself of his or her age by examining the certificate of birth or other certificate emanating from a public authority. He must also keep a record of all the children and young persons employed by him, showing their names, ages, residences, the dates of commencing and leaving work, the name and social position of their parents or guardians, and, when necessary, the hours set apart for scholastic instruction. This record and the certificates required in pursuance of the above section must always be produced upon the request of the inspectors. The competent department can order the manner and form in which this record must be kept and also that it shall contain other information than that mentioned above.

Exceptions to the foregoing provisions can be permitted in the following cases: (a) In establishments in which the nature of the work requires it, young persons may be employed at all hours of the day or night, provided they are not employed more than 10 hours a day, as above directed. The provisions concerning the intervals of rest of children and young persons can be modified according to the exigencies of the work. (b) In case the operation of an establishment is interrupted, or threatens to be interrupted, by some occurrence of nature, an accident, or other unexpected event, the employer can,

upon his request made in advance, be authorized to increase the hours of labor of young persons employed by him for a limited period, or to employ them as permitted in virtue of (a) of the present section. (c) Industries which are specially subject to press of orders during certain times of the year can be authorized by general orders to increase the hours of labor. (d) In those industries in which the inspector finds that the work is easy he can permit young persons to be employed as many as 10½ hours per day, provided that the total hours of labor per week do not exceed 60.

The exceptions provided for by the present section are authorized by the inspectors, but their decisions in the cases of (a), (c), and (d) are only valid after they have been sanctioned by the competent department. In the case provided for by (b) no authorization is required by the employer where it is a question of saving the life of some person, or for the first two days' labor.

No work must be performed from 6 p. m. of the day preceding a Sunday or holiday until the day following the Sunday or holiday, or if two holidays follow each other, until 10 p. m. of the second holiday, unless the nature of the industry or other circumstances render the performance of work absolutely indispensable. It is the duty of the competent department, and, in particular cases, of the inspectors, to decide what are such cases. In establishments of this kind employees must not work more than every other Sunday, unless the factory inspectors recognize that this rule is impossible. Work in connection with urgent repairs can be performed without authorization, but the inspectors must be immediately informed concerning it.

The King, after taking into consideration the information furnished by the inspectors, and, if circumstances permit, after the employees have been heard, may promulgate orders for those establishments, or kinds of work, or entire categories of industries which are considered as specially dangerous to the health or lives of employees, or able easily to occasion excessive fatigue, as follows:

- (a) To prescribe special measures of precaution to be taken in work.
- (b) To prescribe the maximum duration of hours of labor that can be required of children and young persons below that fixed by the law.
- (c) To prohibit further than is done by the law the employment of children and young persons.

(d) To prohibit further than is done by the law the employment of women who are pregnant.

(e) To prohibit workmen from taking their meals or remaining during intervals of rest in workrooms, and to require that properly isolated rooms in which they can pass this time shall be placed at the disposition of the employees.

Employers must see that the employees conduct themselves properly and morally in their establishments. Especial care must be taken where the two sexes work together.

Wages must in general be paid in cash, in the establishment, and as often as once a week.

Deductions from wages shall only be made when agreed to by the employees or in pursuance of the provisions of the law or factory regulations.

All establishments which employ more than 25 persons, and all others without regard to the number of their employees, ordered to do so by

the factory inspectors, must draw up a code of shop rules or regulations setting forth the rules governing the methods of operation of the establishments, the conditions of employment, and the discharge and payment of employees. Where fines are provided for they must not exceed the wages for half a day's labor, except in respect to serious offenses which endanger the health or lives of the offender or other persons, or result in the destruction or injury of materials belonging to the employer. The shop rules must mention the acts or omissions for which fines will be imposed.

The product of fines must be paid to the "sick fund" designated by the competent minister. Deductions on account of defective work or damage to materials are not, however, considered as fines.

The shop rules drawn up by the employers must be sent to the inspectors of the district within 4 weeks after the going into force of the law or the opening of a new establishment. These officers, after making such observations as seem called for, must, as soon as possible, send them to the competent department for approval. This approbation will only be given when the rules correspond in every particular to the requirements of law. Before definitely preparing the rules the employer must give to 5 representatives of the employees the opportunity to express their opinion concerning the proposed regulations. These representatives must be chosen by the workingmen over 18 years of age from among their number. Not less than 8 days must be allowed the workingmen's representatives in which to examine and deliberate upon the rules. A certificate stating that these requirements have been complied with must be sent to the department at the same time that the rules are sent for approval. The same formalities must be followed in amending or supplementing rules that have been approved.

The provisions regarding fines and deductions from wages apply equally to establishments in which the preparation of shop rules is not required.

There must be posted in all establishments to which they apply copies of the orders or decrees issued by the King or other authorities in virtue of the present law, printed or written in large, legible letters, in so far as they relate to shopwork. There must also be posted the shop and labor rules and a notice showing the hours at which children, young persons, and adults commence and cease work and their intervals of rest. A copy of the shop rules must be given to each employee.

All contracts with employees contrary to the provisions of this law are void.

For the enforcement of the foregoing provisions the law provides for the appointment of inspectors of factories, with full power to enter establishments and demand information. Under certain circumstances or in particular cases the Government can provide for inspection by special officers appointed for that purpose. In addition to these inspectors the law provides for the creation of local inspection committees, consisting of the president of the local sanitary commission or some other physician selected by the communal council, and certain other members. This committee is subject to the control of the inspector of factories.

Adequate penalties in the form of fines are provided for infractions of the law. The amount of the fine varies according to the circumstances from 5 to 1,000 crowns (\$1.34 to \$268) in the case of delinquent employers, and 2 to 200 crowns (\$0.54 to \$53.60) in the case of employees.

Mention should also be made of the special law of August 6, 1897, in relation to labor in bakeries. This law prohibits all work in bakeries, with the exception of the preparation of the yeast, on Sundays and holidays from 6 p. m. of the preceding day until midnight of the Sunday or holiday.

The length of workday for each workingman must not exceed 12 in each 24 hours, including intervals of rest, of which the one for dinner must be for at least one uninterrupted hour. The employers can, if they desire, adopt the 10-hour system, including the hours for meals, as under existing custom. When a change is made from one of these systems to another the employees affected must be given at least 24 hours' notice.

No workingman shall be employed more than 6 nights in 2 weeks in the night work authorized in the first section of the law. If this work at night is performed by workingmen working during the day, their period of work during the day must be shortened one and a half times the duration of their night work. If the night work is performed by men who do not work during the day, they must not work more than 10 hours, including intervals of rest.

The law permits overtime work on Sundays and at night in the case of certain holidays or the days immediately preceding them. The municipal councils of the communes can also, by orders as sanctioned by the King, grant further exceptions from the general prohibitions upon Sunday and night work at certain seasons of the year when the pressure of work is unusually great. Finally, the police can accord exemption for brief periods of time where the occasion is such as to justify it and the workingmen agree to it. Such permission, however, can not be for more than 6 working days. For exemption for a long period the authorization of the prefect must be obtained.

Children under 14 years of age must not be employed in bakeries. Young persons from 14 to 18 years of age must not be employed in the night work authorized by this law, nor in any manner of work for more than 12 hours in 24.

Infractions of the law are punished by fines of from 10 to 500 crowns (\$2.68 to \$134), the proceeds of which are paid into the bakers' sick fund. If there is no such fund they are paid to the sick fund of the district or the communal fund.

The law applies equally to bakeries attached to hotels, restaurants, and pastry shops.

SWEDEN.

In Sweden the general industrial code of June 18, 1864, contained the broad provision that factory operators and masters in the handicraft trades should be mindful of the health of their employees. The law of 1874 in relation to the public health provided that rooms in which a considerable number of persons worked should be properly ventilated. The general building regulation applicable to cities, promulgated in the same year, provided that factories as well as other buildings in which a considerable number of persons were assembled should be provided with suitable means of exit.

The first law relating directly to the regulation of labor, however, was that of November 18, 1881, in relation to the employment of children in factories. The provisions of this law, which is still in force, may be summarized as follows:

No child under 12 years of age shall be employed in a factory or other establishment. No child between the ages of 12 and 14 years shall be employed unless he has completed his primary education and has the health and strength fitting him for the work for which he is intended. Children of this age must not be permitted to work in factories more than 6 hours a day, broken by an interval of rest of at least half an hour's duration. Young persons from 14 to 18 years of age must not be employed in factories more than 10 hours a day, broken by intervals of rest of at least 2 hours, of which at least $1\frac{1}{2}$ hours must be before 3 p. m. Children and young persons must not be allowed to remain during their intervals of rest in rooms where work is being performed, nor be employed in the work of cleaning machines while they are in motion.

No child or young person under 18 years of age shall be employed at night; that is, between the hours of 8 p. m. and 6 a. m. Young persons under 15 years of age must attend school as required by the school board. No young person or woman shall be employed below ground in mines or quarries. The employment of young persons in work that is especially dangerous or fatiguing shall be regulated by special provisions. Exceptions to the foregoing provisions can be accorded to employers for not more than 4 weeks per year, but in no case shall children be permitted to work before 6 a. m. or after 8 p. m. All employers must be in the possession of the necessary certificates of the age, education, and state of health of each child and young person employed by them. A copy of the present law must be posted in the establishment, together with an indication of the hours of labor. The enforcement of the law is intrusted to the public health authorities of the cities and the local councils in the communes, and infractions of the law will be punished by fines.

Certain alterations in the foregoing provisions were made by the decree of June 22, 1883. Boys from 14 to 18 years of age were authorized to work 12 hours a day instead of 10 in mines and metal works, and these hours need not be between the hours specified in the law of 1881, on condition that the workers are allowed 8 hours' rest at night and are never required to work 2 nights in succession.

The next step in the way of enacting labor legislation was the passage of the important law of May 10, 1889, for the prevention of accidents and the protection of the health of employees in factories. This law was the result of a 5 years' investigation by a commission appointed in 1884 to investigate the subject.

This law may be said, in a general way, to relate to all establishments in which industrial work is conducted on any considerable scale, with the exception of mines and building operations. In all places of work belonging to such establishments the following precautions must be taken:

All openings in the floor—trapdoors, vats, ladders, stairways, etc.—through or from which workmen may fall or be injured by objects falling upon them, must be properly railed in or otherwise guarded. Lifts, cranes, etc., must be inscribed with the weights or the number of persons they are capable of lifting. Wherever there is danger of fire, precautions must be taken for the safety of the employees. Where necessary the stairways must be of noncombustible material, fire-escapes must be provided, etc. Sufficient room must be provided so that workmen in moving about will not be injured by moving machinery. Where motors are installed in the workrooms instead of being located in separate buildings, they must be so surrounded or located that the workmen who are not directly employed in connection with them are not exposed to the danger of being injured by moving parts. Machinery and gearing which present any features of danger must be guarded and arranged so that all chance of employees being injured is removed, and those places which employees can touch must be lighted, so that the moving parts can be easily seen. Before the operation of machinery is started by means of a motor a warning, as agreed upon, must be given in the workrooms. Where the same motor supplies power to a number of stories or different workrooms, means must be provided whereby the machinery in each place can be separately thrown out of gear or notice can be sent to the room containing the motor. In the case of rapidly moving machinery means must, if possible, be provided whereby it can be instantly stopped without stopping the motor. Special means must be taken for throwing means of transmitting power in and out of gear in cases where these operations present features of danger. All possible precautions against danger must be taken in the work of cleaning and oiling machinery.

Where work is carried on in inclosed workrooms, or the nature of the work requires it, the following provisions must be observed: There must be a sufficient air space, not less than 7 cubic meters [247.2 cubic feet] for each employee, and the arrangements necessary for proper ventilation. In the case of shops already in use a smaller air space per employee may be permitted if the rooms are properly ventilated. Workrooms must be properly lighted and heated. Measures, as dictated by practical experience and the nature of the work, must be taken to prevent the diffusion of dust, gas, or vapor in the rooms in quantities injurious to the health of the employees. The workrooms must always be kept in a clean condition.

Notices must be posted in the workrooms indicating the precautions that must be taken to protect the health and lives of employees.

These notices must be approved by the factory inspectors. Places presenting unusual dangers must have special warnings posted.

It is the duty of the employees to cooperate in the accomplishment of the purposes for which the present law is enacted, and to conform to the regulations and notices prepared with this end in view.

Provision is finally made for the appointment of a suitable number of factory inspectors to supervise the enforcement of the law and to assist the directors of industrial enterprises with advice concerning the measures of hygiene and security that should be taken by them. Local health and municipal officers must assist the inspectors in the performance of their duties to the extent of their powers. In the case of imminent danger the provincial authorities can prohibit the continuation of a particular work, the entrance into a particular room, or the use of certain machines until proper measures of precaution are taken. Infractions of the law are punished by fines. An inspection service was duly organized by order of June 20, 1890. The country was divided into 3 districts, with an inspector for each one. In 1895 the number of inspectors was increased to 5.

In addition to this general law in relation to the protection of workmen in factories, mention should be made of the special decree of February 18, 1870, concerning the conditions to be observed in the manufacture of matches. This decree regulates in great detail the precautions that must be taken to prevent phosphorus necrosis.

A law enacted December 13, 1895, extended the provisions of the law of 1889, with certain limitations, to State and municipal works. A decree of January 24, 1896, made it obligatory upon the directors of establishments coming under the law of 1889 to report all accidents resulting in the death of an employee or his inability to work for 14 days to the authorities, who in turn should inform the inspectors.

DENMARK.

Factory legislation in Denmark dates from the enactment, May 23, 1873, of a law regulating the employment of children and young persons in factories. This law provides that all establishments carrying on work according to factory methods and employing persons under 18 years of age shall be subject to the Government supervision and regulations provided by the act. The most important of these provisions are as follows:

Children under 10 years of age must not be employed in factories as above described. Children between 10 and 14 years of age must not be employed more than $6\frac{1}{2}$ in each 24 hours, inclusive of a rest of at least one-half hour, and they must not be permitted to work before 6 a. m. or after 8 p. m. If they work before 11 a. m. they must not be employed after 1 p. m. either in the same or in another establishment.

Young persons of both sexes between 14 and 18 years of age must

not be allowed to work more than 12 hours daily, or before 5 a. m. or after 9 p. m. Intervals of rest of a total duration of not less than 2 hours coming between the hours of 8 a. m. and 6 p. m., $1\frac{1}{2}$ hours of which must be before 3 p. m., must be included in the 12 hours that they are permitted to work.

Children and young persons must not be allowed to remain during their meal hours in rooms in which work is being carried on. Where dust or other injurious substances are generated in the prosecution of the work, the health authorities can order that the children and young persons be provided with a clean room in which to pass their intervals of rest and meal times.

Children must not be employed on Sundays and church holidays. Young persons of the female sex and children must, as far as possible, be kept apart from the adult male workers both during working hours and the intervals of rest.

In the case of work which is especially unhealthy or requires the exercise of great strength, the minister of the interior can, by order, fix the age at which children and young persons can be employed only under certain conditions higher than that given in the law and royal order, or can entirely prohibit the employment of young persons under 18 years of age in such work. The minister can also, where the conditions are sufficiently favorable to warrant it, grant exemption from the general restrictions; but in no case can he permit children to be employed at night.

Before employing a child or young person, the manufacturer must inform himself concerning his or her age and state of health. The age is to be established through the birth certificate, which must be delivered gratuitously by the authorities, and the state of health through a certificate from a duly authorized physician, stating that the child's health is such as to permit of its employment without injury to its health in the work for which it is intended. The physician is entitled to a remuneration of 20 crowns [\$5.36] for his services, which must be paid by the employer.

Children who have not completed their school requirements must not be employed in the establishments covered by this law during the hours when they should be at school, nor during at least one hour preceding this time. Each child must therefore be provided with a certificate from the teacher of the school which he attends, stating the hours when he should be at school, and the employer must not employ a child unless he is in possession of such a certificate.

In all establishments comprehended under the present law there must be kept a register showing the name, age, and address of all children and young persons there employed. In the case of children there must also be shown the name and address of the children's parents or guardians, the hours when they should be at school, as well as any other details thought necessary by the minister of the interior.

The factories must be so maintained, the machines so installed, and the work so carried on that the health and lives of the employees will be protected as far as possible during the conduct of the work and the time they remain in the establishment. All the moving parts of machinery and all engines moved mechanically, with which children or young persons can come in contact, either in the course of their work or in moving about, must be substantially inclosed as far as the nature of the machinery or the work performed will permit, and it must be

prohibited to remove the protecting inclosure while the machines are in motion. Children and young persons must not be permitted to clean any part of a machine while the latter is in motion.

For the enforcement of the law the minister of the interior was directed to appoint two inspectors with all the usual powers of visiting establishments, calling for information, prosecuting offenders, etc. The place of these officials is now taken by the factory inspectors provided for by the law of 1889 concerning the safeguarding of machinery that is considered below. Infractions of the law are punished by fines varying in amount according to the offense. A copy of the essential provisions of this act and the name and address of the inspector of factories of the district in which the establishment is located must be posted by the employer in a conspicuous place in his factory. The health and local police authorities are furthermore directed to see that factory buildings are kept in a sanitary condition; that they are well ventilated, and are not overcrowded. To this end they are empowered to draw up and enforce regulations setting forth more fully the particular conditions that must be observed.

The foregoing law has been supplemented by two others, that of February 14, 1874, concerning the manufacture of matches, and that of April 12, 1889, concerning the safeguarding of dangerous machinery.

The first law prohibits the manufacture of matches in the making of which use is made of white phosphorus. It is moreover prohibited to manufacture, import, or trade in matches other than those requiring a specially prepared surface upon which they must be struck to be ignited. In match factories in which use is made of red or amorphous phosphorus and calcium chlorate the rooms in which the phosphorus is prepared must be entirely separated from the rooms in which the calcium chlorate is prepared.

The law of 1889 is a very comprehensive measure. It relates to all machines, no matter in what industry or establishment employed, operated by a mechanical motor or horse mill, which can endanger the health or lives of the persons who tend them. Under the head of "machines" are included motors and means of transmitting power as well as machinery proper. The regulations are very technical. The principal ones are as follows:

Machines must be constructed and their moving parts inclosed so that workmen can not come in contact with the moving parts, either during their work or in passing them, except as the result of imprudence. The belts, shafting, etc., by which power is transmitted must be located sufficiently high above the floor or inclosed or guarded in such a way that employees can not be injured by them. Projections in the way of boltheads, arms, etc., must be avoided. Electrical conductors must be properly insulated. Where a motor is installed in a room in which workmen move about, it must be inclosed so that only those persons tending it can come in contact with the moving parts.

In all new factories or other work places the passages by which the

employees move about must be sufficiently high and broad to prevent employees from coming in contact with moving machinery except as the result of imprudence.

Children under 10 years of age must not be employed in tending agricultural machines comprehended under the present law unless they are under the immediate supervision of their parents. This provision, however, does not apply to the work of tending a horse mill.

Children and young persons under 16 years of age must not be permitted to tend steam boilers or any machine which has been classified as dangerous by administrative order. Neither must they be allowed to oil, clean, or examine machinery while it is in motion, nor to change belts, cables, or pulleys, etc., unless use is made of special appliances.

The motor operating machinery must not be started until a signal that can be plainly heard has been given to the employees working in connection with the machines so operated, and a reply signal has been made, unless the machinery is so constructed that it can be stopped independently of the motor. In every case where a machine can not be immediately stopped by the person tending it without stopping the motor means must be provided whereby the employee can signal to the person tending the motor to stop it.

While machines are in motion they must not be cleaned or oiled except when this can be done without putting aside the inclosures, guards, etc., mentioned above and the clothes of the employee can not come in contact with the moving parts of the machinery. Women must not be employed to clean or oil machinery.

During working hours, all places containing machinery tended or operated by workmen must be well lighted so that all the moving parts of the machinery presenting features of danger to employees can be plainly seen. The necessary precautions must be taken in furnishing artificial light where easily inflammable gases, vapors, or dust are generated. The floors near machinery and the recesses in which means of transmitting power run must be kept clean, so that they are not rendered slippery by the accumulation of oil or grease, or must be covered with sand or some article serving the same purpose.

The construction and operation of machines which are particularly dangerous can be further regulated by decrees.

Builders or persons furnishing any of the machines covered by this law must in all cases send with them the appliances as above required for covering the gearing, pinions, etc.

The minister of justice must furnish gratuitously to all employers and employees requesting it copies of the present law, and an extract containing its principal provisions and all orders relating to it as prepared by the minister of justice must be posted in all factories or work places operated according to factory methods where it can be easily read by the employees.

The enforcement of the foregoing provisions is intrusted to the factory inspectors in the case of establishments coming under their supervision, and in the case of machines operated by water power, wind, or animal power, to persons delegated by the municipal councils. All machines to which the law refers must be inspected at least once a year. The law provides for the appointment of 2 inspectors and 12

assistants. These inspectors must not only enforce the provisions of the foregoing law, but also inspect boilers.

Infractions of the law are punished by fines of from 10 to 400 crowns (\$2.68 to \$107.20).

Sunday labor was regulated by a law passed April 7, 1876, and later by the law of April 1, 1891. According to the law as it now stands stores, with a few exceptions, must be closed after 9 a. m. on Sundays and holidays, and factories must not be operated on such days between the hours of 9 a. m. and midnight. To this general prohibition the minister of the interior can permit exceptions under certain circumstances. The first case relates to establishments which, on account of the nature of the work there performed, can only be operated during certain times of the year, or which make use of natural forces, such as wind or water, the supply of which is irregular. In these cases the permission to work Sunday can not be for more than 26 days in a year. A second exemption from the provisions prohibiting Sunday work may be made in the case of industries which must be continuously operated, or the conduct of which is necessary in order to satisfy public needs. In these cases the employer must permit each employee to be free from work at least every other Sunday. The local police authorities may furthermore permit such supplemental work as the guarding of plants, repairing of machines, cleaning up, etc., to be performed on Sunday. Infractions of the law are punished by fines.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

MISSOURI.

Twenty-first Annual Report of the Bureau of Labor Statistics and Inspection of the State of Missouri, for the year ending November 5, 1899. Thomas P. Rixey, Commissioner. 328 pp.

The present report relates to the following subjects: Statistics of manufactures, 105 pages; prison manufactures, 3 pages; competition of prison labor, 5 pages; earnings of wage-workers, 18 pages; Government land in Missouri, 7 pages; county agricultural and industrial statistics, 118 pages; free employment office, 1 page; factory inspection and accidents, 5 pages; strikes and boycotts, 5 pages; recommendations, 8 pages; digest of labor laws, 18 pages; recent judicial decisions, 20 pages; proceedings of the meeting of the National Association of Officials of Bureaus of Labor Statistics, 8 pages.

MANUFACTURES.—Returns are published from 893 private manufacturing establishments, the tabulation being by industries and for each establishment. The report shows that during 1898 these establishments manufactured goods to the value of \$126,932,008, an increase of \$22,891,706 over the total reported last year. They employed 48,060 males and 14,805 females, or a total of 62,865 persons, not including clerical help. The aggregate wages paid during 1898 amounted to \$25,627,837, an increase of \$3,917,482. The average daily wages paid to skilled males, for all industries, were \$2.25; unskilled males, \$1.23; skilled females, \$1.32; unskilled females, \$0.78. These rates are slightly higher than those for 1897.

PRISON MANUFACTURES.—Eight prison factories in the State manufactured goods to the value of \$2,068,053, consisting of saddletrees, clothing, brooms, and boots and shoes. The 8 factories employed 86 skilled males, 1,601 unskilled males, and 35 unskilled females.

EARNINGS, ETC., OF WAGE-WORKERS.—Statistics were compiled from returns made by manufacturers, employers, and employees in every part of the State, showing by industries the nationality, average earnings, days employed during the year, and other facts relating to the condition of skilled wage-workers in 1898. The number of persons considered in this presentation is not shown.

Returns were also compiled showing by occupations the number of employees, average daily wages, days employed, and yearly earnings of steam and street railway employees in the State.

COUNTY AGRICULTURAL AND INDUSTRIAL STATISTICS.—A description is given of each county, showing among other data the raw products, manufactures, and resources and average wages paid in certain occupations.

STATE FREE EMPLOYMENT OFFICE.—A statement is given showing, by occupations, the number of applications for situations and for help received during the fiscal year ending October 1, 1899. The statement shows that 3,933 males and 916 females applied for work. Of these 1,647 males and 671 females secured positions through the agency of the office. There were 3,191 orders for help, 844 of which remained unfilled.

STRIKES AND BOYCOTTS.—Reports of 30 strikes, 1 lockout, and 34 boycotts are published, showing in each case the name of the labor organization and of the firm involved, cause and result, and number of strikes. The 30 strikes involved a total of 2,381 persons. The strikes were mostly due to the failure to recognize the unions, the employment of nonunion men, and demands for increased wages.

STATE REPORTS ON BUILDING AND LOAN ASSOCIATIONS.

CALIFORNIA.

Sixth Annual Report on the Building and Loan Associations of the State of California. May 31, 1899. By the Board of Commissioners of the Building and Loan Associations. 169 pp.

This report comprises details from the annual reports of 151 associations in active operation in the State which had been doing business for more than one year. Each association reported for its own fiscal year, and as these dates occurred at various times during the year a summary of operations for any one date could not be presented.

The following statement gives miscellaneous statistics for 151 associations whose fiscal years ended some time between June 1, 1898, and May 31, 1899:

Associations	151
Members	37, 780
Borrowers	12, 488
Mortgage loans during the year	2, 524
Stock loans during the year	1, 657
Foreclosures since organization	1, 026
Houses built since organization	12, 970
Shares in force at time of last report	403, 582
Shares issued since last report	124, 944
Shares matured and withdrawn since last report	117, 850
Shares in force	410, 676
Shares pledged for loans	111, 911
Free shares	298, 765
Net profits during the year	\$1, 245, 782. 29

The assets and liabilities and the receipts and expenditures of the 151 associations for the last fiscal year covered by the report are shown in the tables which follow:

ASSETS AND LIABILITIES OF 151 ASSOCIATIONS.

Assets.		Liabilities.	
Loans	\$16, 739, 104. 62	Dues (installment stock)	\$12, 872, 670. 70
Arrearages	521, 603. 74	Paid-up and prepaid stock	1, 519, 541. 90
Cash on hand	623, 999. 90	Earnings apportioned	4, 052, 999. 80
Real estate	2, 151, 466. 19	Advance payments	76, 010. 50
Other assets	249, 279. 79	Overdrafts and bills payable	784, 159. 67
		Reserve and undivided profits	440, 309. 63
		Unearned premiums	175, 948. 77
		Other liabilities	363, 813. 27
Total	20, 285, 454. 24	Total	20, 285, 454. 24

RECEIPTS AND EXPENDITURES OF 151 ASSOCIATIONS.

Receipts.		Expenditures.	
Balance, last report.....	\$615,033.83	Overdrafts and bills payable.....	\$1,041,411.64
Installment stock.....	3,316,486.34	Loans.....	3,399,474.39
Paid-up and prepaid stock.....	689,329.21	Interest.....	102,021.79
Interest.....	1,237,176.49	Dues repaid (installment stock).....	3,613,026.54
Premiums.....	371,391.38	Profits repaid.....	1,196,118.99
Fines.....	30,616.33	Paid-up and prepaid stock.....	411,601.36
Fees.....	5,957.75	Salaries.....	261,153.72
Loans repaid.....	4,370,166.04	Taxes.....	228,200.22
Overdrafts and bills payable.....	887,580.21	Other expenses.....	149,530.70
Other receipts.....	824,399.99	All other payments.....	1,381,508.41
		Balance on hand.....	623,999.90
Total.....	12,348,137.57	Total.....	12,348,137.57

CONNECTICUT.

Report of the Commissioner of Building and Loan Associations.

December 31, 1899. George F. Kendall, Commissioner. 129 pp.

The returns presented in this report are for the year ending September 30, 1899. They show a total of 15 domestic building and loan associations, with assets amounting to \$3,774,526.40. The 5 foreign associations, with aggregate assets of \$4,313,015.36 in 1898, withdrew from the State during the year, and do not appear therefore in the present report.

The following statement gives miscellaneous statistics for the 15 domestic associations in the State for the year ending September 30, 1899.

Shares in force at beginning of year.....	83,196
Shares issued during year.....	24,244 $\frac{1}{2}$
Shares withdrawn during year.....	20,506 $\frac{1}{2}$
Shares in force at end of year.....	α 86,868 $\frac{1}{2}$
Shares borrowed upon.....	22,079 $\frac{1}{2}$
Borrowing members.....	2,368
Nonborrowing members.....	10,405
Shares held by nonborrowing members.....	65,245

In the table following are shown the assets and liabilities of the 15 domestic associations in the State for the year ending September 30, 1899.

α This is not a correct balance for the preceding items. The figures given are, however, according to the original.

ASSETS AND LIABILITIES OF 15 DOMESTIC ASSOCIATIONS, SEPTEMBER 30, 1899.

Assets.		Liabilities.	
Loans on real estate	\$3,024,408.22	Due shareholders, installments paid	\$2,231,840.74
Loans on shares	113,678.90	Due shareholders, earnings credit	223,035.64
Real estate	285,133.08	Due shareholders, single payment shares	534,594.57
Cash	189,857.04	Due shareholders, earnings not credited and surplus	84,195.34
Furniture and fixtures	7,592.67	Balance to be paid out on loans made	20,835.37
Installments due and unpaid	9,662.12	Borrowed money	3,095.45
Interest, premium, fees, and fines due and unpaid	12,220.72	Premium account	10,569.71
Stocks, bonds, and other securities	114,593.07	Insurance profits, balance in expense fund, and balance in insurance fund	27,008.25
Taxes and insurance advanced	2,772.10	Guarantee fund and surplus	116,508.00
Interest paid in advance on mortgages conditionally assumed for members	3,923.20	Mortgage and interest conditionally assumed for members	506,220.22
Other assets	5,685.28	Other liabilities	16,623.11
Contracts acquired	104,000.00		
Total	3,774,526.40	Total	3,774,526.40

The report contains also a brief statement of the condition of mortgage investment companies and a reproduction of the laws of the State regarding building and loan associations.

IOWA.

Biennial Report of the Auditor of State to the Governor of Iowa, July 1, 1899. (Building and Loan Associations, 196 pp.) Frank F. Merriam, Auditor of State.

The present report shows the detailed returns of building and loan associations doing business in Iowa, during the years 1897 and 1898. For 1897 reports were received from 111 associations, of which 83 were classed as domestic local, 27 as domestic, and 1 as foreign. The returns for 1898 covered 107 associations, of which 79 were domestic local, 27 domestic, and 1 foreign. The tables which follow show the assets and liabilities of all the associations reported for the years 1897 and 1898:

ASSETS AND LIABILITIES OF 111 BUILDING AND LOAN ASSOCIATIONS, 1897.

Assets.		Liabilities.	
Loans on real estate	\$10,240,649.64	Paid in on installment stock	\$7,674,523.46
Loans on stock pledged	364,460.90	Paid in on full paid stock	989,158.88
Premiums earned and unpaid	89,489.10	Paid in on prepaid stock	526,309.78
Interest earned and unpaid	70,575.37	Paid in on miscellaneous stock	89,821.71
Real estate acquired	698,359.92	Installments paid in advance	10,633.20
Real estate acquired and sold under contract	66,559.33	Premiums paid in advance	25,604.08
Due for taxes and insurance from borrowers	53,102.67	Interest paid in advance	11,209.34
Installments due and unpaid	12,878.81	Incomplete loans	9,344.11
Real estate loans and costs in process of foreclosure	104,145.12	Profits divided	1,776,330.67
Expense fund overdrawn	16,345.65	Profits undivided	632,533.57
Cash on hand and in treasury	287,921.65	Expense fund	12,079.94
Miscellaneous assets	192,795.09	Surplus on contingent fund	60,925.96
Total	12,142,276.26	Bills payable	239,996.01
		Miscellaneous liabilities	133,806.56
		Total	12,142,276.26

a This is not a correct total for the preceding items. The figures given are, however, according to the original.

ASSETS AND LIABILITIES OF 107 BUILDING AND LOAN ASSOCIATIONS, 1898.

Assets.		Liabilities.	
Loans on real estate	\$9,723,692.33	Paid in on installment stock	\$7,647,364.48
Loans on stock pledged	319,739.56	Paid in on full paid stock	914,946.89
Premiums earned and unpaid	37,256.94	Paid in on prepaid stock	643,405.57
Interest earned and unpaid	91,483.69	Installments paid in advance	23,212.61
Real estate acquired	910,235.42	Premiums paid in advance	8,238.42
Real estate acquired and sold under contract	86,212.79	Interest paid in advance	2,058.47
Due for taxes and insurance from borrowers	59,715.87	Incomplete loans	5,905.13
Installments due and unpaid	22,338.81	Profits divided	1,810,301.09
Real estate loans and costs in process of foreclosure	146,272.55	Profits undivided	549,329.13
Expense fund overdrawn	18,400.64	Expense fund	16,602.06
Cash on hand and in treasury	568,035.38	Surplus on contingent fund	214,715.02
Miscellaneous assets	115,430.89	Bills payable	222,046.17
		Miscellaneous liabilities	40,689.73
Total	12,098,814.87	Total	12,098,814.87

MICHIGAN.

Fourth Annual Report of the Department of State on Building and Loan Associations, for the year ending July 1, 1899. Justus S. Stearns, Secretary of State. 178 pp.

The returns of the building and loan associations in the State show a decrease of \$726,145.86 in the assets on July 1, 1899, as compared with the preceding year. There was likewise a decrease in the number of associations, the number of members, and the number of shares in force.

The following statement shows miscellaneous statistics of the building and loan associations in the State for the fiscal years ending July 1, 1898, and July 1, 1899:

MISCELLANEOUS STATISTICS OF BUILDING AND LOAN ASSOCIATIONS FOR THE FISCAL YEARS ENDING JULY 1, 1898 AND 1899.

Items.	1898.	1899.
Associations	75	72
Authorized capital stock	\$275,875,000	\$269,575,000
Capital stock in force July 1	\$28,744,300	\$26,072,103
Shares in force at the beginning of the fiscal year	312,435½	294,992½
Shares issued during the year	69,681	66,381½
Shares matured during the year	7,535	9,532½
Shares retired during the year	1,815½	2,899
Shares withdrawn during the year	71,503½	61,814½
Shares otherwise eliminated during the year	6,269½	17,746½
Shares in force at the close of the fiscal year	294,992½	269,381½
Number of investing members	25,472	23,777
Number of borrowing members	10,500	8,998
Total membership	35,972	32,775

In the following tables are shown the assets and liabilities and the receipts and disbursements of 72 building and loan associations for the fiscal year ending July 1, 1899:

ASSETS AND LIABILITIES OF 72 ASSOCIATIONS, JULY 1, 1899.

Assets.		Liabilities.	
Cash on hand, general fund.....	\$76,780.22	Net capital dues credited stockholders.....	\$7,221,306.78
Cash on hand, loan fund.....	435,862.32	Total dividends credited on above stock.....	997,983.58
Cash on hand, expense fund.....	7,070.48	Matured stock.....	124,642.12
Loans on mortgage security.....	7,036,562.79	Advance payments, capital dues.....	172,286.42
Loans on stock security.....	350,186.18	Advance payments, interest on loans.....	3,054.37
Loans on other security.....	10,681.60	Advance payments, premium on loans.....	233.28
Furniture and fixtures.....	14,718.91	Unearned premiums.....	57,667.27
Stationery and supplies.....	4,040.53	Undivided profits.....	704,495.15
Real estate.....	1,087,912.80	Contingent undivided profits.....	143,979.30
Delinquent interest, premiums, and fines.....	200,513.23	Contingent capital dues.....	186,927.40
Delinquent dues.....	191,860.47	Due on loans.....	48,909.88
Due for insurance and taxes paid.....	44,952.55	Contingent or reserve fund.....	55,456.76
Accounts receivable.....	36,436.61	Bills payable.....	16,851.00
Land contracts.....	546,552.66	Miscellaneous.....	426,768.98
Miscellaneous.....	115,430.94		
Total.....	10,159,562.29	Total.....	10,159,562.29

RECEIPTS AND DISBURSEMENTS OF 72 ASSOCIATIONS, JULY 1, 1899.

Receipts.		Disbursements.	
Cash on hand July 1, 1898, general fund.....	\$144,222.96	Loans on mortgage security.....	\$1,667,966.16
Cash on hand July 1, 1898, loan fund.....	369,186.58	Loans on stock security.....	200,113.80
Cash on hand July 1, 1898, expense fund.....	9,786.63	Loans on other security.....	5,469.26
Dues on stock credited to general fund.....	517,061.18	Withdrawals of stock.....	1,790,195.21
Dues on stock credited to loan fund.....	1,740,896.52	Interest and profits on withdrawals.....	323,727.35
Dues on stock credited to expense fund.....	111,482.78	Matured stock.....	674,035.79
Loans on mortgage security repaid.....	1,959,364.68	Profits and interest on matured stock.....	265,712.55
Loans on stock security repaid.....	187,286.68	Retired stock.....	68,133.75
Loans on other security repaid.....	13,897.73	Expenses for salaries.....	109,238.45
Interest.....	559,762.29	Expenses for other purposes.....	93,501.64
Premiums.....	136,431.79	Insurance and taxes.....	125,452.06
Fines.....	22,842.26	Forfeitures.....	4,501.11
Rents.....	53,358.96	Real estate.....	344,296.74
Forfeitures.....	2,323.36	Rebate of premiums on loans repaid.....	12,024.10
Real estate sold.....	316,687.66	Bills payable.....	106,106.53
Interest on bank deposits.....	7,418.31	Land contracts.....	200,639.22
Insurance and taxes repaid.....	117,325.69	Miscellaneous.....	488,995.21
Transfer and withdrawal fees.....	4,621.91	Cash on hand, general fund.....	76,780.22
Pass books and membership fees.....	14,453.95	Cash on hand, loan fund.....	435,862.32
Bills payable.....	49,783.31	Cash on hand, expense fund.....	7,163.37
Land contracts.....	134,574.85		
Miscellaneous.....	527,625.74		
Total.....	6,999,914.84	Total.....	6,999,914.84

NEW YORK.

Annual Report of the Superintendent of Banks Relative to Building and Loan and Cooperative Savings and Loan Associations, for the year ending December 31, 1898. Frederick D. Kilburn, Superintendent of Banks. 693 pp.

The present report consists of a list of building and loan and cooperative savings and loan associations doing business in the State from 1875 to 1899, a detailed statement of the condition of the associations

on January 1, 1899, arranged by counties, a comparative statement of the assets, liabilities, receipts, disbursements, etc., of associations for the year 1898, a detailed statement of the condition of lot associations and a reproduction of the laws relating to building and loan and cooperative savings and loan associations.

The following table shows for the year 1898 miscellaneous statistics regarding shares, borrowers, female shareholders, mortgages, etc., for 358 national and local associations in the State:

MISCELLANEOUS STATISTICS OF 358 ASSOCIATIONS FOR THE YEAR 1898.

Items.	National.	Local.	Total.
Shares in force January 1, 1898.....	874, 704	727, 338	1, 602, 042
Shares issued during the year.....	337, 078	177, 636	514, 714
Shares withdrawn during the year.....	291, 707	182, 219	473, 926
Shares in force December 31, 1898.....	920, 075	712, 755	1, 632, 830
Borrowing members.....	12, 131	19, 834	31, 965
Shares held by borrowing members.....	206, 664	196, 887	403, 551
Nonborrowing members.....	65, 493	69, 827	135, 320
Shares held by nonborrowing members.....	718, 411	515, 868	1, 234, 279
Female shareholders (a).....	9, 833	28, 239	38, 072
Shares held by females (a).....	118, 486	187, 704	306, 190
Foreclosures in 1898.....	476	267	743
Amount of mortgages on property in the State.....	\$11, 346, 217	\$28, 566, 461	\$39, 912, 678
Expenses for the year.....	\$923, 819	\$290, 779	\$1, 214, 598

a Not including 33 associations not reporting.

The returns show an increase for 1898 in the assets both of the local and of the national associations. The following tables give for that year the total assets and liabilities and receipts and disbursements for the 358 associations reported:

ASSETS AND LIABILITIES OF 358 ASSOCIATIONS FOR THE YEAR 1898.

Items.	National.	Local.	Total.
ASSETS.			
Loans on bond and mortgage.....	\$17, 729, 057	\$30, 905, 857	\$48, 634, 914
Loans on shares.....	626, 803	939, 482	1, 566, 285
Stocks and bonds.....	22, 157	34, 310	56, 467
Contracts for the sale of real estate.....	363, 675	887, 191	1, 250, 866
Real estate.....	6, 897, 980	2, 791, 466	9, 689, 446
Cash on hand and in bank.....	626, 487	1, 874, 386	2, 500, 873
Furniture and fixtures.....	62, 258	42, 458	104, 716
Installments due and unpaid.....	99, 112	199, 733	298, 845
Interest, premium, fees, and fines due and unpaid.....	276, 862	164, 621	441, 483
Other assets.....	573, 728	230, 063	803, 791
Total.....	27, 177, 069	37, 569, 567	64, 746, 636
LIABILITIES.			
Due shareholders, stock payments credited.....	16, 212, 822	29, 271, 033	45, 483, 855
Dividends credited.....	1, 306, 102	4, 822, 763	6, 128, 865
Due shareholders, matured shares.....	2, 500	363, 132	365, 632
Balance to be paid borrowers on mortgage loans.....	724, 539	236, 655	961, 194
Mortgages assumed.....	5, 914, 881	167, 568	6, 082, 449
Borrowed money.....	238, 970	350, 542	589, 512
Earnings undivided.....	1, 946, 867	1, 966, 699	3, 913, 566
Other liabilities.....	830, 868	391, 165	1, 222, 033
Total.....	27, 177, 069	37, 569, 567	64, 746, 636

RECEIPTS AND DISBURSEMENTS OF 358 ASSOCIATIONS FOR THE YEAR 1898.

Items.	National.	Local.	Total.
RECEIPTS.			
Cash on hand January 1, 1898.....	\$740, 408	\$1, 633, 485	\$2, 373, 893
Stock payments credited to members.....	4, 107, 409	7, 774, 747	11, 882, 156
Deductions credited to expense or similar fund.....	403, 198	5, 918	409, 114
Money borrowed.....	565, 500	1, 145, 902	1, 711, 402
Mortgages redeemed, foreclosed, or transferred.....	4, 705, 753	5, 867, 317	10, 573, 070
Other loans redeemed.....	1, 514, 093	726, 490	1, 240, 573
Real estate sold.....	1, 621, 304	289, 518	1, 910, 822
Fees received by associations and agents.....	143, 804	27, 366	171, 590
Fines received.....	42, 848	44, 468	86, 811
Interest received.....	952, 240	1, 646, 049	2, 598, 289
Premiums received.....	707, 201	368, 597	1, 075, 798
Rent received.....	151, 855	113, 331	265, 186
Other receipts.....	3, 290, 534	283, 298	3, 573, 827
Total.....	17, 945, 447	19, 927, 084	37, 872, 531
DISBURSEMENTS.			
Loaned on mortgage.....	6, 295, 643	5, 718, 412	12, 014, 055
Loaned on other securities.....	576, 665	843, 180	1, 419, 845
Paid shares withdrawn and cash dividends.....	4, 113, 412	8, 034, 039	12, 147, 451
Paid matured shares.....	23, 519	829, 752	853, 271
Paid borrowed money and prior mortgages, principal and interest.....	1, 083, 666	1, 247, 749	2, 281, 415
Paid for real estate.....	3, 028, 444	628, 291	3, 656, 735
Paid salaries and clerk hire.....	368, 401	184, 447	552, 848
Paid agents.....	271, 158	4, 562	275, 720
Paid advertising, printing, and postage.....	77, 284	24, 101	101, 385
Paid rent.....	56, 612	33, 598	90, 210
Paid repairs to real estate.....	127, 697	58, 773	186, 470
Paid taxes, insurance, etc.....	94, 706	83, 735	178, 441
Other disbursements.....	1, 353, 102	362, 059	1, 715, 161
Cash on hand December 31, 1898.....	525, 138	1, 874, 386	2, 399, 524
Total.....	17, 945, 447	19, 927, 084	37, 872, 531

RECENT FOREIGN STATISTICAL PUBLICATIONS.

BELGIUM.

Les Industries à Domicile en Belgique. Office du Travail, Ministère de l'Industrie et du Travail. Vol. I, 1899, xx, 362 pp; Vol. II, 1900, 464 pp.

In 1895 the superior council of labor of Belgium was charged with the preparation of a law regarding the labor contract, and as this council decided to limit its mission to that class of contracts "by which a workingman engages to work under the authority, direction, and supervision of an employer or head of an industry," it was deemed advisable to ascertain the exact nature of the contracts entered into between manufacturers and the home workers whom they employ. With this end in view the Belgium department of industry and labor appointed special investigators to examine into the economic condition and legal status of this class of labor, in accordance with a programme of work outlined by the bureau of labor.

The present volumes contain six of a series of reports, showing the results of these investigations. These reports deal with the arms manufacturing industry of Liege and vicinity, the men's garment industry of Brussels, the cutlery industry of Gembloux, the linen industry of Flanders, the straw-braiding industry in the Jaar Valley, and the shoemaking industry in the Flemish countries, each being prepared by a separate investigator. The report in each case consists of an historical sketch of the development of the home industry, a review of the general conditions under which home work is performed, the relations between manufacturers, contractors, and the working people, the labor contract, wages, hours of labor, the sweating system, sanitary conditions, accidents, employers' and employees' associations, etc.

FRANCE.

Saisie-Arrêt sur les Salaires. Office du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. 1899. xxiii, 138 pp.

The present report is the result of an inquiry instituted by the French bureau of labor in response to a request from a senatorial commission charged with the examination of a proposed law regarding the attachment of the wages of working people, clerks, etc. Two thousand

circulars were addressed to the heads of large manufacturing and commercial establishments, chambers of commerce, and employers', employees', and other organizations, asking their opinions as to the advisability of maintaining the principle of attachment of a portion of the wages or of adopting that of total exemption. The law in force, dated January 12, 1895, provides that one-tenth of the wages may be attached.

Of 817 who responded, 412 were in favor of total exemption and 368 favored some form of attachment, 37 responses being indefinite. The report gives a detailed analysis of the returns, classified according to the nature of the responses received.

NEW SOUTH WALES.

First and Second Progress Reports of the Unemployed Advisory Board.
1899. First report, 5 pp.; second report, 24 pp.

These are the first two of a series of reports issued by a board appointed by the Government of New South Wales to make inquiries regarding the unemployed, to advise the Government in dealing with the same, and to carry out practically the plans to be adopted for their relief.

In the first report twelve classes of public works are suggested as temporary means of employment, including forest thinning, railway and road construction, drainage, etc.

In the second report a comprehensive scheme of relief is suggested consisting of two propositions—one for the worthy unemployed and the other for the vagrant classes. The first proposition relates to the establishment of receiving depots, industrial-farm settlements, and assisted settlement blocks.

The receiving depots are to serve as temporary refuges for worthy men and women, who are to be assisted as much as possible in obtaining employment in the ordinary channels of industry, and who should, if suitable, be eligible for admission to the industrial-farm settlements. While these receiving depots are not to be regarded as self-supporting, the labor of the inmates should be made to reduce the expenditures as much as possible.

The industrial-farm settlements are intended to provide homes and maintenance for the unemployed who have applied at and conformed to the regulations of the receiving depots. These settlements are expected eventually to become self-supporting by the inauguration of the greatest diversity of employment, both agricultural and manufacturing, of which the land and inmates are capable. The surplus products, after meeting the requirements of the inmates, are to be supplied to charitable institutions or public departments or exported to other countries. The remuneration is to be made in the form of

board, residence, clothing, etc., in proportion to the work done and the resources available. These farms are to be regarded merely as temporary places of residence, and every endeavor is to be made to find employment for settlers in the ordinary channels of work.

Those inmates of the industrial farms who show the necessary aptitude and trustworthiness in farm work are to be afforded an opportunity of taking up assisted settlement blocks, where they can be provided with permanent homes and an independent living. For this purpose it is proposed that the Government should set aside suitable areas of land, to be divided into blocks sufficiently large to maintain one family each, no person being permitted to hold more than one block. A part of each block is to be cleared fit for the plow by inmates of the industrial farms, fencing wire is to be supplied, as well as timber for a residence. Interest is to be charged on the capital thus expended and on the unimproved value of the land. The blocks are to be transferred to the settlers upon terms of perpetual lease and on condition of occupation, proper use of the land, payment of interest, and compliance with other specifications.

The second proposition contemplates the establishment of a compulsory labor colony to which the persistently idle and vagrant class may be committed with a view to their possible reformation, and where an endeavor should be made to compel them to earn as much as they consume. The inmates are to be carefully classed and provided with such inducements by way of food and luxuries as may stimulate a spirit of industry among them. Commitments should be for at least one year for the first offense and two years for the second.

In addition to the above proposed institutions the board also recommended, among other things, the establishment of a labor intelligence department, a system of agricultural instruction in the primary schools, systematic forest planting, the carrying out of extensive drainage schemes, etc.

NORWAY.

Statistiske Oplysninger om Alders- og Indtægtsforholde, etc., da begyndt at arbeide, og Indtægtsforholde 1894. Socialstatistik, Bind I, II, III. Bilag til den parlamentariske Arbejderkommissions Indstilling.

The present publication, which constitutes Vols. I, II, and III of a series of reports entitled "Socialstatistik," was prepared as a part of the work of the Norwegian parliamentary commission on labor. It contains the results of an inquiry regarding the age, occupation, income, etc., of persons at the time of their first employment and on December 31, 1894. Other subjects to be investigated by this commission will be treated in subsequent volumes of this series.

Of the present publication, the first volume consists of an analysis

and summary tables while the other two volumes give the detailed tables for the cities and rural districts embraced in the inquiry. The investigation covers 7 per cent of the urban and 6.2 per cent of the rural population of Norway, 15 years of age or over. The statistics show the age, occupation, and earnings of persons at the time of their first employment and their occupation and earnings during the year 1894, a comparison of the occupation of fathers and of children at the time of the latter's first employment, the earnings by occupation and age classes, the estimated earnings of one generation, etc.

Of 81,942 persons considered 21,444 belonged to the urban and 60,498 to the rural population. Of the former 9,104 were males and 12,340 females, and of the latter 28,593 were males and 31,905 females. Of the entire number considered 24,231, or 29.57 per cent, began work when from 6 to 13 years of age; 52,998, or 64.68 per cent, when from 14 to 19 years of age; 2,135, or 2.60 per cent, when from 20 to 24 years of age; 735, or 0.90 per cent, when 25 years of age or over; 1,828, or 2.23 per cent, had not begun work, and in the case of 15, or 0.02 per cent, the age was not reported.

The occupation at the time of first employment and the occupation status on December 31, 1894, were reported in the cases of 37,042 males and 42,991 females. The two following tables show for males and females, respectively, by original occupations, the number who on the above date remained at their original occupation, the number who changed their occupation but remained in the same industry, the number who changed both occupation and industry, and the number who were no longer engaged in gainful occupations:

OCCUPATIONS OF 37,042 MALES AT TIME OF FIRST EMPLOYMENT AND STATUS ON DECEMBER 31, 1894.

Occupations at time of first employment.	Remained in same occupation.		Remained in same industry, but changed occupation.		Changed both occupation and industry.		No longer engaged in gainful occupations.		Total.	Average years included in period.
	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.		
Higher public officials.....	75	90.4	.....	.....	2	2.4	6	7.2	83	22.5
Inferior public officials and clerks.....	191	60.8	32	10.2	70	22.3	21	6.7	314	24.7
Fishermen.....	102	57.0	.....	.....	70	39.1	7	3.9	179	22.9
Merchants, bankers, etc.....	41	48.8	6	7.2	29	34.5	8	9.5	84	28.7
Proprietors of other industrial establishments.....	99	48.3	4	1.9	82	40.0	20	9.8	205	22.0
Clerks, officials, etc., mercantile trades.....	601	52.1	303	26.2	205	17.8	45	3.9	1,154	19.0
Clerks, officials, etc., in other trades.....	73	41.2	11	6.2	86	48.6	7	4.0	177	20.2
Farmers' sons assisting in agricultural work.....	2,914	19.9	6,538	44.7	3,873	26.5	1,297	8.9	14,622	28.4
Agricultural servants.....	1,066	16.5	2,378	37.1	2,532	39.5	442	6.9	6,408	28.1
Other agricultural employees.....	632	43.9	215	17.7	401	33.1	64	5.3	1,212	22.2
Factory employees.....	1,096	66.0	82	4.9	438	26.4	45	2.7	1,661	18.8
Employees, handicraft trades.....	1,983	43.6	1,270	27.9	1,098	24.2	195	4.3	4,546	24.1
Seamen.....	753	30.3	527	21.2	1,062	42.4	150	6.1	2,482	26.4
Laborers, commerce and transportation.....	588	47.3	125	10.0	499	40.1	32	2.6	1,244	18.0
Other occupations.....	843	31.6	35	1.3	1,687	63.1	106	4.0	2,671	22.2
Total.....	10,947	29.6	11,526	31.1	12,124	32.7	2,445	6.6	37,042	25.6

OCCUPATIONS OF 42,991 FEMALES AT TIME OF FIRST EMPLOYMENT AND STATUS ON DECEMBER 31, 1894.

Occupations at time of first employment.	Remained in same occupation.		Married and became housewives.		Changed both occupation and industry.		No longer engaged in gainful occupations.		Total.	Average years included in period.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
Married housewives.....	948	76.5	.....	.....	101	8.2	190	15.3	1,239	21.5
Proprietors of small industrial establishments.....	230	58.1	111	28.0	30	7.6	25	6.3	396	16.2
Other independent gainful occupations.....	75	42.1	44	24.7	47	26.4	12	6.8	178	14.2
Public and private clerks, officials, etc.....	700	57.7	327	26.9	118	9.7	69	5.7	1,214	13.7
Daughters assisting in housework at home.....	1,193	27.3	1,852	42.3	996	22.8	333	7.6	4,373	21.9
Daughters assisting in agricultural work at home.....	3,406	21.2	8,178	50.8	3,132	19.5	1,362	8.5	16,078	26.9
Servants engaged in housework.....	2,080	25.1	4,068	49.1	1,471	17.8	667	8.0	8,286	23.9
Servants engaged in agricultural work.....	2,294	24.0	4,607	48.2	1,925	20.1	732	7.7	9,558	26.9
Other agricultural employees.....	74	42.8	55	31.8	37	21.4	7	4.0	173	20.0
Factory employees.....	269	48.9	207	37.6	62	11.3	12	2.2	550	13.1
Other occupations.....	430	45.4	256	27.1	215	22.7	45	4.8	946	16.6
Total.....	11,699	27.2	19,706	45.9	8,133	18.9	3,454	8.0	42,991	24.7

The tables show that of the 37,042 males considered, 29.6 per cent remained in the same occupations during the average period of 25.8 years elapsing between the time of first employment and December 31, 1894; 31.1 per cent changed their occupations but remained in the same industry; 32.7 per cent changed both occupation and industry, and 6.6 per cent had ceased engaging in gainful occupations. Of the 42,991 females considered, 27.2 per cent remained in the same occupation, 45.9 per cent married and became housewives, 18.9 per cent changed their occupation and industry, and 8 per cent were no longer engaged in gainful occupations at the end of the average period of 24.7 years elapsing between the time of first employment and December 31, 1894.

The next two tables show the earnings per year of 36,901 males and 42,988 females at the time of their first employment and of 37,650 males and 44,223 females during the year 1894.

YEARLY EARNINGS OF 36,901 MALES AND 42,988 FEMALES AT THE TIME OF FIRST EMPLOYMENT.

Yearly earnings at time of first employment.	Males.		Females.	
	Number.	Per cent.	Number.	Per cent.
Less than 100 kroner (\$26.80).....	839	2.27	1,483	3.45
100 kroner (\$26.80) and less than 200 kroner (\$53.60).....	27,684	75.02	38,912	90.32
200 kroner (\$53.60) and less than 300 kroner (\$80.40).....	8,967	10.75	1,444	3.36
300 kroner (\$80.40) and less than 400 kroner (\$107.20).....	2,357	6.39	767	1.78
400 kroner (\$107.20) and less than 600 kroner (\$160.80).....	1,129	3.06	231	.54
600 kroner (\$160.80) and less than 800 kroner (\$214.40).....	480	1.30	116	.24
800 kroner (\$214.40) and less than 1,000 kroner (\$268).....	107	.29	31	.07
1,000 kroner (\$268) or over.....	338	.92	15	.04
Total.....	36,901	100.00	42,988	100.00

YEARLY EARNINGS OF 37,650 MALES AND 44,223 FEMALES DURING 1894.

Yearly earnings during 1894.	Males.		Females.	
	Number.	Per cent.	Number.	Per cent.
Less than 100 kroner (\$26.80)	1,808	4.80	2,969	6.71
100 kroner (\$26.80) and less than 200 kroner (\$53.60)	3,413	9.07	11,028	24.94
200 kroner (\$53.60) and less than 400 kroner (\$107.20)	10,722	28.48	20,790	47.01
400 kroner (\$107.20) and less than 600 kroner (\$160.80)	7,874	20.91	6,238	14.11
600 kroner (\$160.80) and less than 800 kroner (\$214.40)	5,713	15.17	1,586	3.59
800 kroner (\$214.40) and less than 1,000 kroner (\$268)	3,023	8.03	674	1.52
1,000 kroner (\$268) and less than 1,500 kroner (\$402)	2,694	7.16	607	1.37
1,500 kroner (\$402) and less than 2,000 kroner (\$536)	822	2.18	134	.30
2,000 kroner (\$536) and less than 3,000 kroner (\$804)	767	2.04	115	.26
3,000 kroner (\$804) and less than 5,000 kroner (\$1,340)	485	1.29	61	.14
5,000 kroner (\$1,340) and less than 10,000 kroner (\$2,680)	246	.65	19	.04
10,000 kroner (\$2,680) or over	83	.22	2	.01
Total.....	37,650	100.00	44,223	100.00

The tables show that the bulk of the persons enumerated earned less than 200 kroner (\$53.60) per year at the time of their first employment, only a small proportion of either sex earning more than that amount. In 1894 the greater part of the males earned between 200 and 800 kroner (\$53.60 and \$214.40) and of the females between 100 and 400 kroner (\$26.80 and \$107.20).

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, has been continued in successive issues. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks and when long by being printed solid. In order to save space, immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

CONSTITUTIONALITY OF STATUTE—ATTORNEYS' FEES TO BE ALLOWED IN FORECLOSURE OF MECHANICS' LIENS—*Davidson et al. v. Jennings et al.*, 60 *Pacific Reporter*, page 354.—In a suit brought by I. W. Jennings and others against J. E. Davidson and another for the foreclosure of a mechanic's lien, a judgment was rendered in favor of the plaintiffs in the district court of Gunnison County, Colo., and the defendants, Davidson and one Himebaugh, appealed to the supreme court of the State, which rendered its decision February 5, 1900, and reversed the decision of the lower court.

The opinion of the supreme court was delivered by Judge Goddard who, in the course of the same, used the following language:

Counsel for appellants contend that the judgment and decree are erroneous, in that the lien decreed against the property of appellants includes, in addition to the principal and interest of the debt, and the usual costs, the allowance of attorney's fees to the respective lien claimants. These allowances were made in pursuance of section 18, c. 117, p. 325, Sess. Laws, 1893, which reads as follows: "In all suits for the foreclosure of liens provided for in this act in which the plaintiffs shall obtain a judgment and decree of foreclosure against the property described in said lien there shall be taxed as costs, in addition to the costs already provided for in such cases, a reasonable sum as an attorney fee to be fixed by the court at the time of rendering such judgment and decree." It will be seen that this section imposes a penalty upon the defendant for exercising, in this class of cases, the common right of making a defense, which is accorded to every other litigant in the courts, by subjecting him to the payment of the plaintiff's attorney's fees if he is successful, without giving him (the defendant) a reciprocal right if he is victorious. As furnishing support for this character of legislation, we are referred to the following cases, wherein statutes allowing an attorney's fee to plaintiff in actions against railroad companies for the killing of stock have been held to be constitutional.

Here the judge cites a long list of cases, and then continues:

An examination of these cases discloses that the statutes there under consideration required the railroad company to fence its right of way.

and provided penalties for the nonperformance of this statutory duty—among them, an attorney's fee—but no such reason underlies the legislation in question. The attorney's fee allowed by the foregoing provisions of our statute is not in the nature of a penalty for the violation of any statutory duty, but a punishment for the failure to pay the claim of the lienor, and can not be sustained upon the principle announced in those cases. Its validity, therefore, depends upon whether it violates any provision of our constitution. Section 6 of our bill of rights enacts "that courts of justice shall be open to every person, and a speedy remedy afforded for every injury to person, property or character; and that right and justice should be administered without sale, denial or delay."

We are unable to perceive any reason why, in an action to enforce their claims for merchandise or material furnished in the erection of a house or for the development of a mining claim, they [the appellees] should be afforded any other or greater rights than are given other merchants who furnish provisions or supplies to persons for family consumption, or that their debtors should not have the same right to contest the justice of their claims upon the same terms and conditions as are afforded to other debtors by the general law of the land. It is no answer to say that the debtor may avoid the imposition of this additional cost by paying his honest debts, because the very purpose of the litigation he invokes is to determine whether he owes the debt or not. And it is immaterial whether he successfully defeats the larger part of the claim. He may nevertheless be mulcted in a sum which will deprive him of any benefit from the defense which he has legitimately established. It is also equally immaterial whether he interposes a vexatious defense, or makes an honest though unsuccessful one, or allows judgment to be taken against him by default; he is subjected to the same penalty. We think this character of legislation is prohibited by section 6 of our bill of rights, and that both upon principle and authority section 18 of the lien law is unconstitutional, and that the court below erred in allowing the attorney's fees complained of.

CONSTITUTIONALITY OF STATUTE—BREACH OF EMPLOYMENT CONTRACT—*State v. Chapman*, 34 *Southeastern Reporter*, page 961.—In the general sessions circuit court of Anderson County, S. C., James Chapman was convicted of breaking an employment contract after having received advancements, etc. His conviction was had under the provisions of act No. 286, acts of 1897, which reads as follows:

Any laborer working on shares of crop or for wages in money or other valuable consideration under a verbal or written contract to labor on farm lands who shall receive advances either in money or supplies and thereafter willfully and without just cause fail to perform the reasonable service required of him by the terms of the said contract shall be liable to prosecution for a misdemeanor, and on conviction shall be punished by imprisonment for not less than twenty days nor more than thirty days, or to be fined in the sum of not less than twenty-five dollars nor more than one hundred dollars, in the discretion of the court: *Provided*, The verbal contract herein referred to shall be witnessed by at least two disinterested witnesses.

He appealed his case to the supreme court of the State, which rendered its decision February 16, 1900, and affirmed the conviction.

Chief Justice McIver delivered the opinion of the court, and in the course of the same used the following language:

The sole question presented by this appeal is whether the act of 1897 under which the appellant has been convicted is unconstitutional. From the language of this act, it will be seen that the offense denounced is not merely the violation of a contract by a laborer employed to work the lands of another, but the offense consists in receiving advances, either in money or supplies, and thereafter, willfully and without just cause, failing to perform the reasonable service required of him by the terms of the contract. It is apparent, therefore, that this case differs widely from the case of *State v. Williams*, 32 S. C., 123, 10 S. E., 876, upon which appellant seems mainly to rely. There the defendant was indicted simply for a violation of the contract into which he had entered with the landholder, by willfully failing to give to the landholder the labor reasonably required of him by the terms of the contract, which was made a penal offense by section 2084 of the General Statutes of 1882. By that section it was made a penal offense for either party (the landholder or the laborer) to violate the contract therein referred to; but, as the statute discriminated between these two parties in fixing the amount of punishment that might be imposed for the same offense, the court held that such discrimination rendered the statute unconstitutional.

The offense for which the appellant has been convicted would not be complete if the laborer, before receiving advances in money or supplies, had willfully and without just cause failed to perform the reasonable service required of him by the terms of the contract; for the gist of the offense is in failing to do so after he has received advances in money or supplies made to him upon the faith that he would perform the reasonable services required of him by the terms of the contract. It is clear, therefore, that there is no discriminating feature in the act of 1897, and we do not see how there could be one, inasmuch as laborers never make advances, either in money or supplies, to landholders. We are of opinion, therefore, that none of the grounds upon which the constitutionality of the act of 1897 has been assailed are tenable.

CONSTITUTIONALITY OF STATUTE — PERSUASION OF SEAMAN TO DESERT VESSEL—*Young v. Frazier et al.*, 59 *Pacific Reporter*, page 707.—Conrad Young was indicted by the grand jury of Multnomah County, Oreg., for the crime of enticing one William Schrke, a seaman employed on the German ship *Peru*, to desert therefrom, and upon being arraigned in the circuit court was allowed until the next day to plead, whereupon he immediately sued out, in another department of said court, a writ of habeas corpus, which was served upon the defendant, who, for his return to the writ, certified that he held plaintiff, by virtue of an order of said court, to answer the indictment returned against him. Upon this issue a trial was had resulting in

Young's discharge, and the State of Oregon then appealed the case to its supreme court. The indictment was based upon section 1952 of Hill's Annotated Laws of Oregon, which reads as follows:

"If any person or persons shall entice, persuade, or by any means attempt to persuade, any seaman to desert from, or without permission of the officer then in command thereof to leave or depart therefrom, either temporarily or otherwise, any ship, or steamer, or other vessel while such ship, steamer, or other vessel is within the waters under the jurisdiction of this State or within the waters of the concurrent jurisdiction of this State and the Territory of Washington, such person or persons shall, upon conviction thereof before any justice of the peace, or before a circuit court of this State, be punished," etc.

The question presented upon the appeal was whether this statute is violative of subdivision 3, art. 1, sec. 8, of the Constitution of the United States, as being an attempt on the part of the legislative assembly to regulate commerce with foreign nations. The decision of the supreme court of Oregon was rendered January 15, 1900, and the act was declared to be constitutional and valid and the order of the circuit court releasing Young from custody was reversed.

Justice Moore, in delivering the opinion of the court, used the following language:

Notwithstanding Congress possesses power to regulate commerce with foreign nations and among the several States, each State has retained a sufficient measure of power to enable it to enforce its internal police regulations, in the exercise of which it can establish and regulate ferries across its navigable rivers, control the moving of vessels in harbors within its borders, and enact health and inspection laws, which, by quarantine or otherwise, may operate on persons brought within its jurisdiction in the course of commercial operation. It is only when a statute of a State conflicts with an act of Congress regulating foreign or interstate commerce, or contravenes the general policy of the Government, that it must yield.

Congress has prescribed a punishment for any person who shall harbor or secrete a seaman belonging to any vessel, knowing him to belong thereto. (Rev. St., U. S., sec. 4601.) In construing this section it has been repeatedly held, however, that the penalty therein prescribed does not apply to the harboring or secreting of any person employed as a seaman on a vessel which does not belong to a citizen of the United States. But, if it were held that this section applied with equal force to seamen employed on a foreign vessel, section 1952, Hill's Ann. Laws Or., not being repugnant thereto or inconsistent therewith, is enforceable in the courts of this State; the rule being that the statute of a State and an act of Congress may each prohibit the commission of the same offense, and prescribe the same or a different punishment therefor, under which the party found guilty thereof may suffer the penalties provided by the laws of the United States and of the State.

If the statute under consideration be deemed a regulation of commerce, it is local in its application and limited in its operation; and,

Congress not having assumed control of the subject thereof, it is within the power of the State to prescribe the necessary regulations.

The act in question is a rightful exercise of the police power of the State, in the regulation of the matters to which it applies; and instead of being in conflict with any regulation of Congress upon the subject, or in contravention of the general policy of the Government, it is in fact in aid of commerce rather than in restriction of it.

EMPLOYERS' LIABILITY—VALIDITY OF A RELEASE OF CLAIM FOR DAMAGES FOR INJURIES—INSPECTION OF MINE—*Pawnee Coal Co. v. Royce*, 56 *Northeastern Reporter*, page 621.—Judgment was rendered in favor of Walter Royce, the plaintiff in a suit against the above-named coal company, in an inferior court of the State of Illinois. This action was appealed from by the company to the appellate court of the third district, which affirmed the action of the lower court. The defendant company again appealed the case, this time to the supreme court of the State, which rendered its decision February 19, 1900, and reversed the action of the lower courts. The action was brought to recover damages for injuries received by Royce while in the employ of the coal company.

The facts of the case are given in the opinion of the supreme court, which was delivered by Judge Phillips, and the essential parts of the same are quoted below:

Plaintiff's declaration consisted of seven counts, two of which were afterwards dismissed. The first charged the defendant with negligence in failing to keep entry No. 2 of its mine in a reasonably safe condition for hauling cars, and the side of the track free from obstructions, but, on the contrary, suffered large quantities of stone, coal, etc., to remain along the side of the track; that while plaintiff was driving the mule hitched to a loaded car, being in the exercise of ordinary care, etc., the mule kicked him, and threw him over the front end of the car, in such a way that he fell against the obstructions, and was thereby thrown under the car, which passed over his leg, so that it became necessary to amputate same. The remaining four counts are based on section 4 of the mining act, [chapter 93, Revised Statutes of 1891], a part of which provides that "all mines in which men are employed shall be examined every morning by a duly authorized agent of the proprietor, to determine whether there are any dangerous accumulations of gas, or lack of proper ventilation, or obstructions to roadways, or any other dangerous conditions, and no person shall be allowed to enter the mine until such examiner shall have reported all of the conditions safe for beginning work. Such examiner shall make a daily record of the condition of the mine in a book kept for that purpose, which shall be accessible at all times for examination by the men employed in and about the mine and by the inspector."

By the seventh instruction given for the plaintiff, the jury were told that if they believed, from the evidence, that the plaintiff came to his

injuries as the result of a willful violation of the provision relating to defendant's duties, as stated in the instruction forth in the last four counts of the declaration, then find that the plaintiff was in the exercise of ordinary care, should assess his damages, etc., "less any amounts received." Appellant complains of this instruction, because plaintiff was relieved of the obligation to exercise due care, reason there was no evidence on which to base it. If there is a statutory duty by the defendant, as a result of which plaintiff is injured, is willful, the plaintiff need not show that he was in the exercise of due care. Neither can we accede to the position that there was no evidence to support the instruction. It is true that the plaintiff's own testimony shows that an examination was made, but that with the making of that examination the duties of the defendant ceased. The law goes further, and provides that "no person shall be allowed to enter the mine until such examiner shall have ascertained that the conditions are safe for beginning work." The report of the examiner states that all of the conditions were safe for beginning work. In finding the evidence for the plaintiff as true, as we must for the purpose of this discussion, the appellant had actual notice of the conditions of this entry. Nor does it make any difference that the plaintiff did not look for the record, under the facts of this case. The plaintiff relied on the statute or on the promise of the appellant that he had the right to assume that the appellant would keep the mine safe, and he also had the right to assume that it would conform to the statutory requirement, and was not bound to ascertain whether it was doing so.

Plaintiff executed a release for all damages in connection with the suit of clothes, transportation home, the payment of the bill which amounted to about \$115, and the cancellation of the bill of account; all of which was paid him, and which he has never returned to the defendant company. He claims that he was under the influence of opiates and was drunk, having taken considerable quantities of whisky and beer during the three days intervening between the execution of the release by him.

It is a familiar and well-established principle of law that if a person attempts to avoid a contract or instrument on the ground of fraud or misrepresentation, he must return or restore the property received under it, or offer to do so, or no action can be maintained against him. And while the plaintiff might not be compelled to return the property before suit brought, under certain circumstances, as, where he does not know of the existence or nature of the fraud, the law is that the rescission and offer to restore must be made at the earliest practicable moment, whenever that may be. The release, if fairly entered into, would have constituted a complete bar to the cause of action. If, however, a release is procured by the defendant by means of an active or positive fraud upon the plaintiff by him or its officers, there may be circumstances under which the release will not be required to be returned, or offer to return, the property received for the pretended release, but he may bring his action to recover the same, if he can show that he was doing so.

The fraud that would obviate the necessity of the return of the property

paid in settlement and for a release is the fraud of the party procuring the release, and must be an actual, intended fraud. The series of instructions given omitted the qualification as to whether the alleged release was procured by the fraud of the defendant or its officers practiced upon the plaintiff, or of the effect of a subsequent ratification by him, and, in effect, told the jury that the release was inoperative. There was evidence tending very strongly to prove that the plaintiff did, with full knowledge of the release and of the benefits received thereunder, ratify the same, and express himself well satisfied therewith, and that he felt the defendant company had treated him very well. The case was exceedingly close on the facts, and the defendant was entitled to have the jury fairly and accurately instructed as to the law governing every material feature of the case.

ORDERS OF EMPLOYEES DRAWN ON EMPLOYER FOR PAYMENT OF WAGES TO THIRD PARTY SUBJECT TO INTERNAL-REVENUE TAX—*Granby Mercantile Company v. Webster*, 98 *Federal Reporter*, page 604.—This was a suit brought under the provisions of Revised Statutes, sec. 3226, to recover back the amount of a tax exacted under the internal-revenue law. It was heard in the United States circuit court for the district of South Carolina, and a decision, refusing to refund the tax, was rendered December 27, 1899.

The facts are clearly stated in the opinion of Circuit Judge Simon-ton, who, in the course of the same, used the following language:

The question presented in this case, lying, as it does, in a very narrow compass, is nevertheless important. The Granby Mercantile Company had an understanding with the Granby Mills—whether put into formal contract or not does not appear. Under this contract or understanding the mercantile company sold goods to the operatives of the mills on credit. When the accounts for such sales were presented to the treasurer of the mills, they were paid out of the moneys due to the operatives making them for wages in the mills, the mercantile company guarantying the mills company the correctness of the several accounts. To protect itself, and as vouchers for each transaction, the mercantile company at each sale took from the purchaser an order in this form:

COLUMBIA, S. C., ____.

GRANBY COTTON MILLS: Pay to the Granby Mercantile Company
 _____ dollars _____ cents, for my account.

Witness:
 _____.

The Granby Mercantile Company never presented these orders to the mills, but filed them away as vouchers, probably to be presented in case the maker disputed the account. The collector of internal revenue, discovering this mode of dealing, called upon the Granby Mercantile Company to affix the 2-cent revenue stamp upon each of these orders. He insisted upon this demand, and the Commissioner

of Internal Revenue, upon an appeal to him, sustained the decision of the collector. The mercantile company paid the demand, 2 cents upon 15,847 orders, in all \$316.94, and now brings suit for its repayment. (Section 3226, Rev. St., U. S.)

The collector proceeded under section 6 of the act of Congress approved June 13, 1898, entitled "An act to provide ways and means to meet war expenditures, and for other purposes," passed in 2d session of 55th Congress.

Schedule A [of said act] requires a stamp of 2 cents on "bank check, draft, or certificate of deposit not drawing interest, or order for the payment of any sum of money drawn upon or issued by any bank, trust company, or any person or persons, companies or corporations, at sight or on demand." The collector requires a stamp upon instruments referred to in the case at bar because they are orders for the payment of money. There can be no doubt that they are orders for the payment of money, and nothing else. The language used can have no other interpretation. The plaintiff, however, says that, whatever may be their form, they were not intended for presentation, were never in fact presented, but were taken, kept, and filed by the mercantile company as vouchers for each sale. The case of *U. S. v. Isham*, 17 Wall., 496, 21 L. Ed., 728, says:

"The liability of an instrument to a stamp, as well as the amount of such duty, is determined by the form and face of the instrument, and can not be affected by proof of facts outside the instrument itself."

And this rule commends itself. Were it necessary to inquire into all the circumstances attending the execution of an order for the payment of money, before it can be ascertained whether it be liable to the stamp tax, endless delay would be occasioned. The purpose of the tax—the prompt relief of the Treasury—would be defeated.

The important question, however, is this: Who is liable for the stamp? The drawer of the order unquestionably is. He comes within the words of the act, being the person "who makes, signs, or issues" the order. But, besides this, the payment must be made by the maker, or by the party "for whose use or benefit the order shall be made, signed, or issued." In the case at bar, "for whose use or benefit" were these orders made or signed or issued? The transaction is this: The operative makes the purchase. He can not or does not desire to pay cash. But the mercantile company is unwilling, or at least does not intend, to rely on the personal credit of the operative. It takes from him an order on the mills company, payable out of the account of the operative with the mill company. That is the security which the mercantile company takes, and it is taken for its benefit. Whether it be presented then, or is kept for presentation at some time in the future, if needed, or whether it be retained simply as a voucher—a verification of the account—it is taken for the use of the mercantile company. So that company comes within the words of the statute. It can not be said that these words, "or for whose use or benefit the same shall be made, signed, or issued," apply to the drawer of the order. If this were so, the words quoted would be entirely superfluous, mere surplusage; nor would the disjunctive "or" have been used to connect these words with the words preceding. This seems conclusive of the question. Let an order be taken dismissing the complaint.

SEAMEN—WAGES—ADVANCE NOTES FOR SAME—*The Staghound and the Gamecock* (Scheuffler, intervener), 97 *Federal Reporter*, page 973.—This case was heard in the United States district court for the district of Oregon and the decision in the same was rendered November 1, 1899.

The opinion, delivered by District Judge Bellinger, shows the facts in the case, the decision, and the reasons therefor. It reads as follows:

Scheuffler, as the assignee of Wall, Willey, and McDonald, intervenes by petition to be paid, out of the funds derived from the sale of the steamers *Staghound* and *Gamecock*, certain claims arising out of the following facts: On the 9th of June, 1898, Wall, Willey, and McDonald shipped on board the *Staghound*, for service on board said steamer, for a trip to Alaska. It was admitted upon the argument that these persons regularly signed the shipping agreement, and received what are denominated "advance notes" for one month's pay, which notes have been assigned to Henry Scheuffler, who presents this petition. It is not so stated in the petition, but it was admitted upon the argument, that the parties so shipping actually went upon the steamer, which sailed from the port of Astoria, and was compelled to put back, after having gone to sea, in a wrecked condition. It is claimed on behalf of the representatives of the transportation company that this case is within the doctrine of the case of *Grossett v. Townsend*, 30 C. C. A., 457, 86 Fed., 908, decided by the circuit court of appeals for this circuit, where it is held, in effect, that an advance of wages, represented by an advance note, is invalid, and money paid under it can not be deducted from a seaman's wages.

In other words, the rule adopted by the circuit court of appeals in construing the statutes of the United States relating to the subject, made in the interest of the seaman, in order to protect him from his improvidence and from imposition, is to be turned against him so as to defeat his right of recovery, or the right of recovery by his assignee, where services have actually been performed and the wages earned, for, in my opinion, this is precisely what has occurred in this case. I shall consider the case upon the admitted facts, as well those stated in the petition as those outside of it. When these seamen rendered themselves aboard of the steamers, and went to sea, they entered upon the performance of their contract of shipment. The subsequent loss of the steamers, under the circumstances in this case, will not suffice to relieve the owners from responsibility to the extent of their interest in the fund derived from the sale of the wrecked boats. It was a matter of common knowledge before these boats sailed that they were wholly unfit for the voyage upon which they were about to go, and representations were made to the collector of customs of this port to prevent their clearance; and it turned out that in a smooth sea, in pleasant weather, the two boats were so unseaworthy that they were unable to proceed, and were compelled to return to Astoria in a state of wreck, and after great risk to those employed on board of them.

Section 4527 of the Revised Statutes provides that—

"Any seaman who has signed an agreement and is afterwards discharged before the commencement of the voyage or before one month's

wages are earned, without fault on his part justifying such discharge, and without his consent, shall be entitled to receive from the master or owner, in addition to any wages he may have earned, a sum equal in amount to one month's wages as compensation."

It is admitted that the amount claimed in this case as to each of these persons is the amount of one month's wages due under the contract of shipment, and under the circumstances of the case I am of the opinion that the parties so shipping are entitled to receive wages precisely as though they had been discharged before the wages were earned, since the failure of the voyage was due to no fault of theirs, but wholly to the fault and carelessness of the owners in undertaking the voyage under the circumstances. In any event, it is equitable that these wages should be paid out of the proceeds in the registry of the court, and it is inequitable that the owners of this fund should be allowed to urge against such recovery a rule that an assignee or holder of an advance note can not recover thereon, made for the protection of the seamen themselves. The case is considered and decided upon the assumption that these wages have been earned under the law as quoted, and that the present petitioner is the assignee of the claims for value. Exceptions to petition are overruled.

DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY—DEFECTIVE APPLIANCES—ASSUMPTION OF RISK—*Limberg v. Glenwood Lumber Co.*, 60 *Pacific Reporter*, page 176.—This was an action brought by Albert Limberg against the above-named company, and in the superior court of Santa Clara County, Cal., where the case was heard, he recovered a judgment. The defendant company appealed the case to the supreme court of the State which rendered its decision February 21, 1900, and reversed the judgment of the lower court.

The facts in the case are set out in the opinion of the supreme court, delivered by Judge Garoutte, from which the following is quoted:

Defendant appeals from a judgment and order denying a motion for a new trial. The action is one for damages for personal injuries, and arises upon the following state of facts, as testified to by the plaintiff and his witnesses. Plaintiff was a teamster of experience, 41 years of age. He was hired by defendant to haul lumber with a wagon and four horses. He continued in this employment for a period of 11 months. Then, while traveling upon the public road with his loaded wagon, he fell therefrom beneath the wheels, and the loss of a leg was the result. He asserts negligence upon the part of the defendant in this, that the appliances furnished him with which to do the work were defective. These defective appliances consisted of a wagon having no seat, and also of a pair of lines that were too short. It may be conceded that, if either of these defects had not existed, the accident would not have happened. A short time after the hiring of plaintiff he complained to defendant at two different times that the lines were too short, but never made any complaint as to the lack of a seat upon the wagon. Defendant made no promise to remedy the

defective lines, but remained silent when the complaints were made. From the foregoing state of facts it is insisted by defendant that the motion for nonsuit should have been granted, and it is also claimed that the evidence does not support the verdict and judgment. The contention, in substance, is but a single one, and the sufficiency of the evidence is the question before the court. Testing the facts of this case by the law, we can not see how plaintiff is entitled to recover. It may be conceded that defendant was negligent in not furnishing plaintiff with proper appliances to do the work. Such concession being made, then the question presented is not strictly one of contributory negligence upon the part of the plaintiff, but, rather, did plaintiff assume the risk of working with these defective appliances? If there had been an express contract between the master and servant that the work should be done without a seat to the wagon, and with these identical lines, clearly that agreement would have barred a recovery in this action. This being so, do not the facts indicate an implied contract to the same effect? While the servant only assumes the dangers and risks necessarily incident to the work to be performed, he may, by contract, either express or implied, also assume the risk of working with defective appliances. Indeed, many cases go further, and sustain the proposition that, where the servant proceeds at the outset to perform his work with defective appliances, having knowledge of the defect, then an implied contract arises to the effect that he assumes the risk; especially so if he is aware of the danger surrounding him by reason of the defect. And to say that the servant assumes the risk is but another way of saying that he impliedly agrees to release the master from liability. Plaintiff knew of the defect, and must have known of the danger that surrounded him by reason of it. Any reasonably prudent man must have been aware of it, and the defendant [plaintiff] must be held to be a man of ordinary prudence; indeed, it appears that he was an experienced teamster. Here the master gave no intimation to the servant that he would remedy the defect, and allowed it to continue for nine months without taking a step towards remedying it. Under these circumstances, the servant, at the time of the accident, was not working in expectation that the defect would yet be remedied. After a lapse of nine silent months, he had no right to indulge in any such expectation. Many cases hold that when the master, after complaint, made promises to correct the defect, the servant may continue his employment for a reasonable time, relying upon the master's promise; but here we have no promise. We also have the lapse of a most unreasonable time. The mere fact that the servant makes complaint of the defect gives him no right to rely for all future time upon the complaint made, and thus irrevocably fasten a liability upon the master. If the master had positively refused to correct the defect when the complaint was made to him, then certainly the servant would have been forced by the law to do either one of two things—either assume the risk, and thus release the master from liability; or leave the master's employment. In this case the same conditions, substantially, arose when a reasonable time had gone by after the making of the complaint to the master, and nothing had been done, or even promised. After complaint made, and nine months had come and gone, the plaintiff had no right, as a reasonable man, to believe that the master would remedy these defective lines.

EMPLOYERS' LIABILITY—RELEASE OF CLAIM FOR DAMAGES—*Levister v. Southern Railway Co.*, 35 *Southeastern Reporter*, page 207.—Action was brought by A. H. Levister against the above-named railway company to recover damages for injuries incurred by him while in its employ. At a hearing in the common pleas circuit court of Richland County, S. C., the defendant company set up as a second defense to the suit the following:

“That after the time of the alleged injury, and before the commencement of this action, the defendant delivered to the plaintiff, and the plaintiff received from the defendant, the sum of \$210 in full release, satisfaction, and discharge of all claims for damages resulting from the injury alleged in the said complaint.”

In his reply to said defense the plaintiff used the following language:

“Admits that plaintiff did sign and deliver to the defendant a certain paper, purporting to be a release, to the effect stated in said second defense of the answer, but alleges with reference thereto that the same was fraudulently procured from him by the defendant, in that he was given to understand by said company that if he would sign the paper the defendant would pay him his regular salary of \$35 per month for six months, and would give him employment out of which he might earn a living, whereas the said company never intended to give him such employment, and has failed and refused to do so, although requested to do so by this plaintiff, in consequence whereof the said paper purporting to be a release was wholly void.”

To this reply the defendant demurred upon three grounds, the second of which reads as follows:

“Because the said reply does not contain or state any facts showing that the plaintiff has rescinded said release, and has returned or offered to return to the defendant the consideration thereof, before the commencement of this action.”

Upon this ground the demurrer was sustained by the circuit judge, and the plaintiff appealed the case to the supreme court of the State, which rendered its decision March 7, 1900, and sustained the action of the lower court.

Chief Justice McIver delivered the opinion of the supreme court, and the following is quoted therefrom:

We proceed, then, to the consideration of what we also regard as the only substantial question raised by the appeal, and that is whether a person who has sustained injuries by reason of the alleged negligence of a railroad company, and has afterwards, in consideration for the sum of money paid to him, executed a release of all claims against such company for damages sustained by such injuries, can maintain an action for damages without first returning or offering to return the money so received, even though he alleges that such release was obtained by fraud. It seems that, upon the plainest principles of justice and fair dealing, there can be but one answer to this question,

and that in the negative. To allow a person, after executing a release of all claims against another in consideration of a sum of money paid to him, to repudiate obligations which he assumed by executing the release, and at the same time reap the benefits which he received by executing the release, which would be a fraud, would be asking a court to release him from a fraud which he claims was practiced upon him by another, and at the same time committing a fraud upon such other person; for certainly it would be a fraud to obtain money paid to him in consideration that he would do something which he now claims he is not bound to do and will not do, for certainly, on the theory on which he proceeds, the money which he retains is not his money, but belongs to the person against whom he is asking relief.

If, in such a case, the plaintiff conceives that the release, the execution of which he admits, was obtained by fraud, and for that reason seeks to avoid it, his first step is to return the money he received in consideration of executing the release; for he can not be permitted to retain the benefits which he has received under a contract, and at the same time escape the obligations which such contract imposed upon him. Upon principle, therefore, we think it clear that there was no error on the part of the circuit judge in sustaining the demurrer on the second ground.

LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE JANUARY 1, 1896.

[The Second Special Report of the Department contains all laws of the various States and Territories and of the United States relating to labor in force January 1, 1896. Later enactments are reproduced in successive issues of the Bulletin from time to time as published.]

CONNECTICUT.

ACTS OF 1899.

CHAPTER 140.—*Inspection, etc., of bake shops.*

SECTION 1. Section 2 of chapter 174 of the public acts of 1897 is hereby amended to read as follows: Every owner of a building or buildings occupied as a bake shop shall cause the same to be properly drained, plumbed, lighted, and ventilated, and the occupant, tenant, or lessee of any bake shop shall cause the same to be kept in a clean and sanitary condition, and conducted with proper regard to the health of the operatives and the production of wholesome food. No cellar not now used as a bakery shall be hereafter used and occupied as a bakery, and a cellar heretofore so used and occupied shall, when once closed, not be reopened for the purpose of use as a bakery. Every room hereafter used for the manufacture of flour or meal food shall be at least eight feet in height.

SEC. 2. The word cellar as used in this act shall be construed to mean any room wholly or in part underground, except such rooms or basements as shall, in the judgment of the inspector of factories, be properly drained, plumbed, lighted, and ventilated.

SEC. 3. This act shall take effect from its passage.

Approved May 31, 1899.

[See page 233, Bulletin of the Department of Labor No. 26, for other labor legislation of 1899.]

NEBRASKA.

ACTS OF 1899.

CHAPTER 34.—*Enacting new sections of chapter 39 of the Compiled Statutes of 1897 and repealing certain sections thereof—Fire escapes on factories, etc.*

SECTION 4. Within six (6) months after the passage of this act, all buildings in this State, which are four or more stories in height, excepting such as are used for private residences exclusively, but including flats and apartment buildings, shall be provided with one or more metallic ladder or stair fire escapes attached to the outer walls thereof, and provided with platforms of such size and dimensions, and such proximity to one or more windows of each story above the first, as to render access to such ladder or stairs from each such story easy and safe, and shall also be provided with one or more automatic metallic fire escapes, or other proper device, to be attached to the inside of said buildings so as to afford an effective means of escape to all occupants who, for any reason, are unable to use said ladders or stairs; the number, material, location, and construction of such escapes to be subject to the approval of the commissioner of labor or his deputy: *Provided, however,* That all buildings more than two stories in height, used for manufacturing purposes, or for hotels, dormitories, schools, seminaries, hospitals, or asylums, shall have at least one such fire escape for every fifty persons, and one such automatic metallic escape for every twenty-five persons, for which working, sleeping, or living accommodations are provided above the second stories of said buildings; and that all public halls, which provide seating room above the first or ground story, shall be provided with such numbers of said ladders or other fire escapes as said commissioner of labor or his deputy shall designate.

SEC. 4a. All buildings of the number of stories and used for the purposes set forth in section 4 of this act, which shall be hereafter erected in this State shall, upon or

before their completion, each be provided with fire escapes of the kind and number and in the manner set forth in this act.

SEC. 5. It shall be the duty of said commissioner of labor or his deputy to serve a written notice in behalf of the people of the State of Nebraska, upon the owner or owners, trustees, or lessees, their agents or the occupant of any building within this State, not provided with fire escapes in accordance with the provisions of this act, commanding such owner, trustee, lessee or occupant, or either of them, to place or cause to be placed upon such building such fire escape or escapes as is provided for in section four (4) of this act, within thirty (30) days after the service of such notice. And the grand juries of the several counties of this State may also, during any term visit or hear testimony relating to any building or buildings within their respective counties, for the purpose of ascertaining whether it or they are provided with fire escapes in accordance with the requirements of this act, and submit the result of their inquiry, together with any recommendations they may desire to make, to the district court, and said court may thereupon, if it find from the report of said grand jury that said building or buildings is or are not provided with a fire escape or escapes, in accordance with this act, cause the sheriff to serve a notice or notices upon the owner, trustee, lessee, or occupant of such building or buildings.

SEC. 5a. Any such owner or owners, trustee, lessee or occupant or either of them, or their agents, so served with notice as aforesaid, who shall not, within sixty (60) days after the service of such notice upon him or them, place or cause to be placed such fire escape or escapes upon such building as required by this act and the terms of such notice, shall be subject to a fine of not less than twenty-five or more than two hundred dollars, and to a further fine of fifty dollars for each additional week of neglect to comply with such notice.

SEC. 6. The erection and construction of any and all fire escapes provided for in this act shall be under the direct supervision and control of said commissioner of labor or his deputy, and it shall be unlawful for any person or persons, firm or corporation to erect or construct any fire escape or escapes, except in accordance with a written permit first had and obtained and signed by said commissioner of labor or his deputy, which permit shall prescribe the number, location, material, kind and manner of construction of such fire escape.

SEC. 6a. Any person or persons, firm or corporation, who shall be required to place one or more fire escapes upon any building or buildings, under the provisions of this act, shall file in the office of said commissioner of labor or his deputy a written application for a permit to erect or construct such fire escape or escapes, which application shall briefly describe the character of such building or buildings, the height and number of stories thereof, the number of fire escapes proposed to be placed thereon, the purposes for which such building or buildings is or are used, and the greatest number of people who use or occupy or are employed in such building or buildings above the second stories thereof at any one time.

SEC. 7. Sections 4, 5, 6 and 7 of chapter 39, Compiled Statutes of 1897, together with all acts or parts of acts inconsistent with this act, are hereby repealed.

Approved April 3, 1899.

CHAPTER 53.—*Examination, licensing, etc., of barbers.*

SECTION 1. It shall be unlawful for any person to follow the occupation of barber in this State unless he shall have first obtained a certificate of registration as provided for in this act.

SEC. 2. There shall be established in the State of Nebraska a board to be styled the Barbers' Examining Board, which shall consist of the governor, attorney general and auditor of public accounts, and the governor shall be ex officio chairman of said board, which shall meet as often and at such times and places as the governor may from time to time designate.

SEC. 3. Said board shall within sixty days after the approval of this act appoint three examiners or secretaries, one of whom shall be appointed for the term of one year, one for the term of two years and one for the term of three years and thereafter it shall be the duty of said board to appoint or reappoint one secretary or examiner each year as the term of those theretofore appointed shall expire, but each secretary shall continue in his office until his successor shall have been appointed and qualified. Two of said secretaries shall at the time of their appointment have been in actual employment as barbers in this State for at least five years last past, and one of said secretaries shall be a practicing physician who shall have practiced his profession in this State at least five years prior to his appointment. Any vacancy in the office of said secretaries shall likewise be filled by a person having the same qualifications as such new appointee's predecessor. The secretaries of said board shall take the oath of office prescribed for State officers and shall enter into bonds with sureties

to be approved by the board in the sum of three thousand dollars conditioned for the faithful performance of their duties.

Sec. 4. Said secretaries shall have power and it shall be their duty to assist and advise said board in the performance of its duties as prescribed by this act, to administer oaths and affirmation, to summons witnesses and take testimony in the same manner as witnesses are summoned and depositions taken under the Code of Civil Procedure, and to report said testimony to the board together with their findings of fact and recommendations on all matters coming before said board requiring evidence for their determination.

Sec. 5. It shall be the duty of said board or said secretaries to see that all the provisions of this act are strictly enforced, to grant certificates or permits as herein provided, and to cause to be prosecuted all violations of this act. Said board shall have and use a common seal, and may make and adopt all necessary rules, regulations and by-laws not inconsistent with the constitution and laws of this State or of the United States, to enable it to perform its duties and transact its business under the provisions of this act. A majority of said board shall constitute a quorum for the transaction of business.

Sec. 6. Said board shall prescribe such sanitary rules as it may deem necessary, with particular reference to the precautions employed to prevent the creating and spreading of infectious and contagious diseases. A copy of said rules shall be furnished to any person upon request.

Sec. 7. Said secretaries shall hold public examinations at such times and places in this State as they may deem advisable, notice of such meetings to be given by publication in at least two newspapers published in this State, one of which shall be published exclusively in the interest of barbers, if such last-named publication exists.

Sec. 8. Every person now engaged or wishing to engage in the occupation of a barber in this State, shall, within sixty days after the taking effect of this act, file with said secretaries an affidavit setting forth his or her name, age, residence and the length of time during which and the places where he or she practiced said occupation, and shall pay to said secretaries a fee of one dollar, and if upon investigation of said affidavit the applicant shall be found entitled to practice his or her occupation, there shall be issued to said applicant the certificate of said board under its seal and signed by its secretaries, stating such facts, which certificate shall expire with the ensuing fiscal year ending November 30; and the holder of any certificate issued under the provisions of this act shall, within thirty days of the expiration of his or her certificate, pay to said secretaries a renewal fee of one dollar and make application for a new certificate, stating the number of his last certificate.

Sec. 9. Any person desiring to obtain a certificate of registration under the provisions of this act, after said sixty days, shall make application to said secretaries therefor, and shall pay to said secretaries an examination fee of \$5.00 and shall present himself or herself at any regular meeting of the board of examiners for examination of applicants, whereupon said board or its secretaries shall proceed to examine such applicant, and being satisfied that he or she is above the age of eighteen years; of good moral character; free from contagious or infectious diseases; has either (a) studied the barbers' trade for two years as an apprentice under a qualified and practicing barber, or (b) studied and graduated in a properly appointed and conducted barbers' school or college, or (c) practiced the barbers' trade in another State for at least two years, and is possessed of the requisite skill in said trade to properly perform all the duties and services incidental thereto, and is possessed of sufficient knowledge concerning the common diseases of the face and skin to avoid the aggravation and spreading thereof in the practice of his trade; his or her name shall be entered by the said secretaries in the register hereafter provided for, and a certificate of registration signed by said secretaries shall be issued to him authorizing him to practice said trade in this State for the ensuing fiscal year: *Provided*, That all persons who make application for such examination shall be allowed to practice the occupation of barbering until the next regular examination by said board or secretaries, and said secretaries shall give him or her a written permit so to do, which permit shall be void after the day of its expiration.

Sec. 10. It shall be the duty of the owner of any such certificate or permit to keep the same posted in a conspicuous place in front of his working chair where it may be readily seen by all persons whom he may serve.

Sec. 11. Nothing in this act shall prohibit any person from serving as an apprentice in said trade under a barber authorized to practice his trade under this act, nor from serving as a student in any school for the teaching of said trade under the instruction of a qualified barber: *Provided, further*, That all barber schools or colleges shall keep prominently displayed this sign, "Barber College" or "Barbers' School" and its

corporate name and no other sign or signs. All barbers, or barber schools, or colleges, who shall take an apprentice or student, shall file immediately with said secretaries the name, age and residence of such apprentice or student and the said secretaries shall cause the same to be entered in the register kept for that purpose.

SEC. 12. Said board shall keep a register in which shall be entered the names of all persons to whom certificates are issued and to whom permits for serving apprenticeships (or other permits) are issued under this act, together with the number of each certificate or permit, and said register shall at all times be open to public inspection.

SEC. 13. Said board shall have the power to revoke any certificate of registration granted by it or its secretaries under this act, for (a) conviction of crime or (b) habitual drunkenness, or (c) gross incompetency, or (d) contagious or infectious diseases: *Provided*, That before any certificate shall be revoked the holder thereof shall have notice in writing of the charge against him or her, and shall at a day specified in said notice, at least five days after the service thereof, be given a public hearing and full opportunity to produce testimony in his or her behalf. Any person whose certificate has been so revoked may, after the expiration of ninety days, apply to have the same regrant, and the same shall be regrant to him or her upon a satisfactory showing that the disqualifications have ceased.

SEC. 14. To shave or trim the beard, or cut the hair of any person for hire or reward received by the person performing such services, shall be construed as practicing the occupation of a barber within the meaning of this act.

SEC. 15. The secretaries of said board shall receive for their services the sum of five dollars to be paid by every applicant for a certificate hereafter rendered who may be required to stand an examination; and the sum of one dollar from each applicant under section 8 of this act, and said secretaries shall receive no other fees or compensation. Said fees to be distributed among said secretaries as may be provided by the by-laws of said board.

SEC. 16. Any person practicing the occupation of barber without having first obtained a certificate of registration or a permit as provided in this act, or any person employing a barber who has not such certificate so displayed, or any person falsely pretending to be qualified to practice such occupation under this act, or failing to keep such certificate or permit displayed, or failing to comply with the sanitary rules as laid down by the said board or secretaries, or for the violation of any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than one hundred dollars for each offense or by imprisonment in the county jail of the county where such complaint is prosecuted for not to exceed ninety days.

SEC. 17. It shall be the duty of the county attorney in every district and county in this State, on request of any member of said board or any of its secretaries, to prosecute any person charged with violating any of the divisions of this act.

Approved March 31, 1899.

CHAPTER 77.—*Hours of labor—Railroad employees.*

SECTION 1. No company, corporation or person operating a railroad, in whole or in part, within the State of Nebraska, shall permit or require any conductor, engineer, fireman, brakeman, telegraph operator or any trainman who has worked in his respective capacity for eighteen consecutive hours, except in case of casualty, or unavoidable emergency, to again go on duty or perform any work until he has had at least eight hours for rest.

SEC. 2. Any company, corporation or person who shall violate or permit to be violated, any of the provisions of the foregoing section, or any officer, agent or employer who violates or permits to be violated any of the provisions of the preceding section shall be fined not less than fifty (\$50.00) dollars, nor more than two hundred (\$200.00) dollars, for each and every violation of this act: *Provided, however*, That the proceedings to enforce the penalty, as provided in this act, shall be commenced within six months from the date of the violation of the same.

Approved April 1, 1899.

CHAPTER 107.—*Hours of labor of, and seats for, female employees.*

SECTION 1. No female shall be employed in any manufacturing, mechanical or mercantile establishments, hotel or restaurant in this State more than sixty hours during any one week and that ten hours shall constitute a day's labor. The hours of each day may be so arranged as to permit the employment of such females at any time from six o'clock a. m. to ten o'clock p. m.; but in no case shall such employment exceed ten hours in any one day.

Sec. 2. Every such employer shall post in a conspicuous place in every such females are employed, a printed notice, stating the number required of them each day of the week, the hours of commencing and work and the hours when the time or times allowed for dinner or begins and ends. Printed forms of said notice shall be furnished labor commissioner, and the form of such notice approved by the a of this State.

Sec. 3. Every such employer in such establishment shall provide s the females so employed, and shall permit the use of such seats by t are not necessarily engaged in the active duties for which they are er

Sec. 4. Any employer, overseer, superintendent or other agent employer who shall violate any of the provisions of this act, shall b offense in a sum not less than twenty dollars nor more than fifty d hereby made the duty of the deputy labor commissioner to enforce t this act: *Provided, however,* That nothing in this act shall be constr any other person from enforcing its provisions.

Approved March 31, 1899.

CHAPTER 108.—*Amending sections 245aa, 245bb, and 245cc of the Criminal Code, and enacting new sections thereof to read as below, etc.—Employment of*

SECTION 245aa. Any male or female child under the age of ten years employed in any manufacturing, mechanical, industrial or mercantile

Sec. 245bb. Any male or female child under the age of fourteen be employed in any manufacturing, mechanical, industrial or mercantile, except during the vacations of the public schools; unless d next preceding such employment, said child has for at least twenty some public or private day school where the English is taught; employment continue, unless such child shall in each and every year as herein provided, and no child shall be so employed who does not certificate signed by the president and secretary of the school board of district in which said child resides, of their compliance with the requirement. Nor shall any owner, superintendent or overseer of any such parent or guardian consent to or permit the employment of any child the provisions of this act.

Sec. 245cc. Any owner, superintendent or overseer of any such shall require and keep on file, open to the inspection of the public, the age, place of birth and residence of every male and female child years of age employed therein, so long as such child is so employed; w shall also state, in case the child is under fourteen years of age, the child's school attendance during the year next preceding his employment certificate shall be signed by the president and secretary of the school district in which such child resides, and the forms of certificate to shall be approved by the attorney general of this State.

Sec. 245cc-1. Any person who shall be convicted of a violation provisions of this act shall pay for every such offense a fine of not less than ten dollars nor more than fifty dollars: *Provided, however,* That no conviction shall be had under this act, unless the proceedings therefor shall be commenced within one year after the offense shall have been committed.

Sec. 245cc-2. It is hereby made the duty of the deputy labor commissioner of this State upon complaint being filed with him to inspect any and all to which this act applies, and ascertain whether any of the provisions have been violated. Whenever it shall come to his knowledge that provisions of this act have been or [are] being violated, it shall be his duty to cause the same to be enforced: *Provided, however,* That nothing in this section shall be construed to prevent any other person from causing the enforcement of the provisions of this act.

Approved March 31, 1899.

NEW HAMPSHIRE.

ACTS OF 1899.

CHAPTER 55.—*Examination, licensing, etc., of plumbers.*

SECTION 1. No person, firm, or corporation engaged in or working at the business of plumbing in any city in this State, or in such towns as shall be provided in the provisions of this chapter, shall hereafter engage in or work at said business

State, either as a master or employing plumber, or as a journeyman plumber, unless such person or persons shall first obtain a license or certificate so to do, in accordance with the provisions of this act.

SEC. 2. Any person not engaged in or working at the business of plumbing prior to the passage of this act, and desiring to engage in or work at said business either as a master or employing plumber, or as a journeyman plumber, in any city or town where licenses for plumbers are required, shall be examined as to his qualifications for such business by the board of examiners hereinafter provided for. On or before the first day of September in the year 1899, every master or employing plumber, and every journeyman plumber, engaged in or working at the business of plumbing in this State prior to the passage of this act, and desiring to engage in or work at said business in any city or town where licenses for plumbers are required, shall personally register his name and address at the office of the board of examiners hereinafter provided for, and state, after being sworn, where and how long he has been engaged in or has worked at said business, and whether as a master or employing plumber, or as a journeyman plumber. Said board of examiners, if satisfied that the person so registering was actually engaged in or working at said business prior to said date, shall thereupon issue to him a certificate, setting forth that he was engaged in or working at the business of plumbing, either as a master or employing plumber, or as a journeyman plumber, as the case may be, prior to the passage of this act, and authorizing him to engage in or work at said business as a master or employing plumber, or as a journeyman plumber.

SEC. 3. Every city in this State, and such towns as above provided, shall by ordinance or by-law within six months from the passage of this act, prescribe rules and regulations for the materials, construction, alteration, and inspection of all plumbing, house drainage and sewer connections, creating a board for the examination of plumbers, fixing the length of term each member shall serve, and providing for an inspector of plumbing. Said board shall be appointed by the mayor or board of selectmen, and shall consist of the following three persons: A member of the local board of health, the city or town engineer, or, in the absence of such officer, a local physician in regular practice, and a journeyman plumber of not less than five years' active and continuous practical experience.

SEC. 4. The examining board herein created shall examine and pass upon all applicants, whether as masters or employing plumbers, or journeymen plumbers, in their respective cities or towns, and also all persons who may apply for the office of plumbing inspector. They shall issue a license to such persons only as shall successfully pass the required written and practical examination; and they shall register in a book kept for that purpose the names and places of business of all persons to whom a plumber's license has been granted. They shall not issue a license for more than one year, but the same shall be renewed from year to year upon proper application and upon the payment of a fee of fifty cents. Said examining board shall serve without compensation. Each applicant for examination for a plumbers' license or certificate shall pay the sum of one dollar, and all moneys so collected shall be paid into the treasury of the city or town where such application is made. The license or certificate provided for by this act shall be nontransferable; and said application and examination shall not be required of the same person more than once in the same city or town. Said license or certificate shall be valid throughout the State.

SEC. 5. Any person violating any provision of this act, or any ordinance, by-law, rule, or regulation made thereunder, shall be deemed guilty of a misdemeanor, and shall be subject to a fine not exceeding fifty dollars for each and every violation thereof, and his license may be revoked by the examining board provided for in this act.

SEC. 6. The provisions of this act shall apply to all persons who are now or may be hereafter learning the business of plumbing, when they are sent out to do the work of a journeyman plumber.

SEC. 7. All acts and parts of acts inconsistent with this act are hereby repealed.

SEC. 8. This act shall take effect on its passage.

Approved March 9, 1899.

CHAPTER 69.—*Protection of street railway employees—Inclosed platforms.*

SECTION 1. All cars used by any street railway company in the transportation of passengers shall have the platforms of such cars inclosed in such manner as the railroad commissioners direct, to protect the motormen, conductors, or other employees operating said cars from exposure to the inclemency of the weather during such months and upon such streets, highways, or routes as the railroad commissioners shall direct, after a hearing by said board, upon petition or of their own motion, and

upon personal notice to the street railway company or companies interested, and such further notice as said railroad commissioners may deem expedient and order. And said board shall have authority to modify, change, and revise any orders by it made under this act from time to time, after personal notice to the street railway company affected, giving it a chance to be heard, and such further notice as it may deem expedient.

SEC. 2. Any street railway company which fails or neglects to comply with such orders of the board of railroad commissioners shall be fined not more than fifty dollars (\$50) for each day during which such failure or neglect continues.

SEC. 3. The term "company," as used in this act, shall include any corporation, partnership, or person owning or operating a street railway.

SEC. 4. This act shall take effect June 1, 1899.

Approved March 10, 1899.

CHAPTER 84.—*Employment of children.*

SECTION 1. Section 12 of chapter 93 of the Public Statutes is hereby amended * * * so that said section as amended shall read as follows:

SECTION 12. Children not included under the provisions of the preceding section shall not be employed in a manufacturing establishment unless they shall first furnish to the person proposing to employ them a certificate of the school board of the district in which they reside that they have attended some public or private day school in which the common English branches are taught during the preceding year as follows: If under sixteen and over fourteen years of age, twelve weeks; if under fourteen and over twelve years of age, six months, or such part thereof as the schools in the district in which they reside were in session; and if under twelve and over ten years of age, the whole time the schools were in session in such district. Except that children who are graduates of a regularly graded grammar school, approved by the state superintendent of public instruction, or who have an education equal to that of such graduates, may be granted employment certificates by the school committee of the district in which they reside.

Approved March 11, 1899.

NEW JERSEY.

ACTS OF 1899.

CHAPTER 38.—*Payment of wages.*

SECTION 1. Every person, firm, association or partnership doing business in this State, and every corporation organized under or acting by virtue of or governed by the provisions of an act entitled "An act concerning corporations" (Revision of one thousand eight hundred and ninety-six), in this State, shall pay at least every two weeks, in lawful money of the United States, to each and every employee engaged in his, their or its business, or to the duly authorized representative of such employee, the full amount of wages earned and unpaid in lawful money to such employee, up to within twelve days of such payment: *Provided, however,* That if at any time of payment, any employee shall be absent from his or her regular place of labor and shall not receive his or her wages through a duly authorized representative, he or she shall be entitled to said payment at any time thereafter upon demand; any employer or employers as aforesaid who shall violate any of the provisions of this section, shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than twenty-five dollars and not more than one hundred dollars for each and every offense, at the discretion of the court: *Provided,* Complaint of such violation be made within sixty days from the day such wages become payable according to the tenor of this act; the provisions of this section shall not apply to any employee or employees engaged in agricultural work or as watermen.

SEC. 2. It shall not be lawful for any such person, firm, association, partnership or corporation, as aforesaid, to enter into or make any agreement with any employee for the payment of the wages of any such employee otherwise than as provided in section one of this act, except it be to pay such wages at shorter intervals than every two weeks; every agreement made in violation of this act shall be deemed to be null and void, and the penalties provided for in section one hereof may be enforced notwithstanding such agreement; and each and every employee with whom any agreement in violation of this act shall be made by any such person, firm, association, partnership, corporation or the agent or agents thereof, shall have his or her action at law or right of action against any such person, firm, association, partnership or corporation.

tion, for the full amount of his or her wages in any court of competent jurisdiction in this State.

SEC. 3. The factory inspector of this State and his deputies shall make complaint against any employer or employers aforesaid who neglects to comply with the provisions of this act for a period of two weeks after having been notified in writing by said inspector or his deputies of a violation of this act; and it is hereby made the duty of county prosecutors of the pleas to appear in behalf of such proceedings brought hereunder by the factory inspector or his deputies.

SEC. 4. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

SEC. 5. This act shall take effect immediately.

Approved March 16, 1899.

CHAPTER 124.—*Bureau of labor—Owners, operators, etc., of mills, etc., to make certain returns.*

SECTION 1. It shall be the duty of every owner, operator, lessee, manager or superintendent of every factory, mill, workshop, mine or other establishment or industry in which labor is employed within this State, to make such reports or returns on blanks furnished by the bureau of statistics of labor and industry as the said bureau may require for carrying out the purposes and compiling such statistics as are authorized in the said act and its supplements; and the said owner, operator, lessee, manager or superintendent shall make such report or return within the time prescribed therefor, and shall certify to the correctness of the same.

SEC. 2. Any owner, operator, lessee, manager or superintendent of an establishment or industry in which labor is employed within this State, who willfully neglects to fill such blank within the time allowed for doing so, or who refuses to fill such blank, shall forfeit for every such delay, refusal, the sum of fifty dollars, to be recovered in a court of competent jurisdiction, by action in which the State shall be represented by the chief of the bureau of statistics of labor and industry as plaintiff.

SEC. 3. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

SEC. 4. This act shall take effect immediately.

Approved March 23, 1899.

CHAPTER 202.—*Aliens not to be employed on public works.*

SECTION 1. It shall not be lawful for the State or any county, city, town, township or borough, or other municipal corporation within this State, or for any board, committee, commission or officer thereof, or for any officer, board, body or organization having charge of any public work or any construction, whether the same be a building, excavation, pipelaying, bridge or dock building, sewer or drainage construction, road building, paving, or any other form or kind of public work which shall be undertaken and done at public expense, or for any person or corporation, to employ as a mechanic or laborer upon such public work or construction, or any part thereof, any person who is not at the time of such employment a citizen of the United States; any contractor or officer who shall violate the provisions of this act shall forfeit and pay the sum of one hundred dollars, to be recovered in an action of debt in any court of competent jurisdiction, with costs, and such penalty when recovered shall be paid into the treasury of the State, county, city or other municipal corporation within which and under whose authority such officer or contractor claims to act: *Provided*, The provisions of this act shall not apply to any contract now in force.

SEC. 2. This act shall take effect May first, one thousand eight hundred and ninety-nine.

Passed March 24, 1899.

NORTH DAKOTA.

ACTS OF 1899.

CHAPTER 44.—*Commissioner of agriculture and labor.*

SECTION 1. It shall be the duty of the commissioner of agriculture and labor to collect, systematize and present in biennial reports to the legislative assembly statistical details relating to all labor departments in the State, such as hours and wages of labor, the estimated number of persons employed by the several industries within the State, the operation of labor-saving machinery and its relation to hand labor,

scription of the different kinds of labor organizations in existence in this State what they have accomplished in favor of the class for which they were organized. Such statistics may be classified as the commissioner of agriculture and labor as best.

SEC. 2. The commissioner of agriculture and labor shall be the State statistician. It shall be his duty to obtain from assessors and other officers of the organized entities of the State, and to collect and prepare in tabulated form for reference, statistics showing the assessed valuation of all real and personal property, the acreage yield of all kinds of grain and tame grasses; the number of horses, cattle, sheep and other live stock and other information pertaining to and showing the condition of the growth, development and resources of the State by counties.

SEC. 3. He shall have charge of any exhibits of the products and resources of the State which may be made at any fair or exposition held at any point in the United States, and shall have authority to cooperate with any railroad company doing business within the State, and with any persons interested with a view of securing an exhibit at any fair or exposition held as aforesaid.

SEC. 4. All acts and parts of acts in conflict with this act are hereby repealed.

SEC. 5. Whereas, an emergency exists in this that there is [are] no adequate provisions of law relating to, specifying or governing the subjects enumerated in the foregoing sections; therefore, this act shall take effect and be in force from and after passage and approval.

Approved March 8, 1899.

CHAPTER 103.—*Convict labor.*

SECTION 1. Section 1 of chapter 108 of the session laws of 1897 is hereby amended to read as follows:

1. No person in any prison, penitentiary or other place of confinement of offenders in this State, shall be required or allowed to work while under sentence thereto, at any trade, industry or occupation wherein or whereby his work, or the product or profit of his work, shall be farmed out, contracted and given, or sold to any person, firm, association or corporation; but this act shall not be so construed so as to prevent the product of the labor of convicts from being disposed of to the State, or any political division thereof, or to any public institution owned or managed by the State or any political division thereof for their own use; *Provided*, That nothing in this act shall prohibit the use of convict labor by the State in carrying on any farming operations or in the manufacture of brick, twine or cordage, or prohibit the State from disposing of the proceeds of such enterprises.

SEC. 2. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

SEC. 3. This act shall take effect and be in force from and after its passage and approval.

Approved March 8, 1899.

CHAPTER 129.—*Liability of railroad companies, etc., for injuries of employees.*

SECTION 1. Every railroad corporation owning or operating a railroad in this State shall be liable for all damages sustained by any agent or servant thereof while engaged in switching or in the operation of trains by reason of the negligence of any other agent or servant thereof, without contributory negligence on his part when sustained within this State, and no contract, rule or regulation between such corporation and any agent or servant shall impair or diminish such liability. In actions brought under the provisions of this act, if the jury find for the plaintiff they shall specify in their verdict the name or names of the employee or employees guilty of the negligent act complained of. *Provided*, That nothing in this act shall be so construed as to render any railroad company liable for damages sustained by any employee, agent or servant while engaged in the construction of a new road, or any part thereof, not open to public travel or use.

SEC. 2. All acts or parts of acts inconsistent with this act are hereby repealed.

SEC. 3. Whereas, an emergency exists in that there is no law in this State fixing the liability of railroad companies or corporations owning and operating a railroad for injuries caused to employees thereof by the negligent acts of other employees thereof; therefore, this act shall take effect and be in force from and after its passage and approval.

Approved March 6, 1899

CHAPTER 163.—*Convict labor—Establishment of a twine and cordage plant at the penitentiary.*

SECTION 1. The board of trustees of the State penitentiary is hereby authorized and empowered to establish a hard fiber twine and cordage plant at the said penitentiary and to operate the same for the benefit of the State in the manner hereinafter prescribed.

SEC. 6. The product of said twine and cordage plant shall be disposed of by the board of trustees of said penitentiary under regulations to be prescribed by them, subject only to the following restrictions, viz: The board of trustees of said penitentiary, at its regular meeting held in the month of April in each year, shall fix prices at which the product of the plant shall be sold during that season, such prices to be based on the cost of the product and the demand for it; prices for car load lots shall be one-half cent per pound under prices for smaller lots; the product shall be sold only to those living in the State, and intending and agreeing to use it or sell it for use in the State; the price of the product of the plant so established at the April meeting of the board of trustees shall continue to be the price for the season, unless it shall become evident to the board that the price so established is such that it will prevent the sale of the product, or such that the State will not receive a fair price, based on the market value of like product, in which cases a change in price can be made at any regular meeting of said board thereafter held.

SEC. 8. An emergency exists in that there is a lack of employment for the inmates of the State penitentiary and there are no provisions of law under which the same can be obviated; therefore, this act shall be in force from and after its passage and approval.

Approved February 21, 1899.

OKLAHOMA.

ACTS OF 1899.

CHAPTER 13.—*Protection of employees as voters.*

SECTION 40. No person entitled to vote at any general, National, Territorial or county election shall be employed upon the day on which such election shall be held in any manufacturing, mining, mechanical or mercantile establishment, or any railroad or corporation in this Territory during the period of four hours after the opening of any election in the county in which such person is entitled to vote, except as to works of necessity, in which works of necessity every employee shall be given some period of four hours between the opening and closing of the polls on said day; and any district court may enforce the provisions of this section in term time, or in vacation, by mandate, or otherwise, upon the application of any voter. Every officer of any corporation, owner, superintendent, overseer or foreman, who employs or permits to be employed any person in violation of this section shall be deemed guilty of a misdemeanor, and, upon conviction shall be fined not less than fifty nor more than five hundred dollars.

Approved March 10, 1899.

PENNSYLVANIA.

ACTS OF 1899.

Act No. 50.—*Examination, licensing, etc., of steam engineers.*

SECTION 1. It shall be unlawful for any person or persons to have charge of or to operate a steam boiler or steam engine over ten horsepower, in cities of the first class of this Commonwealth, except locomotive boilers used in transportation, and steam engines and steam boilers carrying less than fifteen pounds pressure per square inch, unless said person or persons are upwards of twenty-one years of age and hold a license, as hereinafter provided for, and it shall be unlawful for any owner or owners, user or users, of any steam boiler or steam engine over ten horsepower, other than those excepted above, to operate or to cause to be operated a steam boiler or steam engine without a duly licensed engineer.

SEC. 2. All persons claiming authority to perform the duties of engineer shall apply to the boiler inspector of such cities, who shall examine the applicant as to his knowledge of steam machinery and his experience as an engineer, also the proofs which he produces in support of his claims, and if, upon full consideration, the

pector is satisfied that the applicant's character, habits of life, knowledge, and experience in the duties of an engineer, are all such as to authorize the belief that he is a suitable and safe person to be intrusted with the powers and duties of such a position, he shall grant him a license, upon the payment of three (\$3) dollars, authorizing him to be employed in such duties for the term of one year, and such license shall be renewed, without examination, upon the payment of one dollar; but such license shall be suspended or revoked upon satisfactory proof of negligence, unskillfulness, intemperance, or the willful violation of any provision of this law. Whenever complaint is made against any engineer, holding a license authorizing him to be in charge of boilers or machinery, that he has through negligence or want of skill committed the boilers in his charge to burn or otherwise become in bad condition, that he has not kept his engine or machinery in good working order, the inspector shall, upon satisfactory proof of such negligence or want of skill, revoke the license of such engineer.

Sec. 3. The inspector shall investigate all acts of incompetency or misconduct committed by any licensed engineer while acting under the authority of his license, and shall have power to summon before him any witnesses within his respective city, and compel their attendance by a similar process as used in the State courts to compel the attendance of witnesses, and he may administer all necessary oaths to any witnesses as summoned before him, and after reasonable notice in writing, given to the alleged delinquent, of the time and place of such investigation, such witnesses shall be examined, under oath, touching the performance of his duties by any such licensed engineer, and if the inspector shall be satisfied that such licensed engineer is incompetent, or has been guilty of misdemeanor, or negligence, unskillfulness, or has endangered life, or willfully violated any provision of this law, he shall immediately suspend or revoke his license, as the facts of the case may require.

Sec. 4. Every engineer who receives a license shall, before entering upon his duties, take oath before the inspector, to be recorded with the application, that he will faithfully and honestly, according to his best skill and judgment, without concealment or reservation, perform all the duties required of him by law.

Sec. 5. Every engineer who shall receive a license shall, when employed about any steam plant, place his certificate of license, which shall be framed under glass, in some conspicuous place about the engine or boiler, where it can be seen at all times, and any neglect to comply with this provision by any such engineer shall be deemed a misdemeanor, and on conviction thereof he shall be subject to a fine of not exceeding one hundred dollars, or the revocation of his license, or both, in the discretion of the court.

Sec. 6. All engineers licensed under the provisions of this law shall assist the inspector in his examination of any boiler under his charge, and shall point out all defects and imperfections known to them in the boilers or machinery, and, in default thereof, the license of any such engineer or engineers, so neglecting or refraining, shall be revoked by the inspector.

Sec. 7. Every person who has been employed as a steam engineer, in the city in which he applies for a license, for a period of four years next prior to the passage of this act, and who files with his application a certificate of said fact, under oath, accompanied by a statement from his employer or employers verifying the same, shall be entitled to a license without further examination.

Sec. 8. It shall be the duty of an engineer when he assumes charge of boilers and machinery to forthwith thoroughly examine the same, and if he finds any part thereof in bad condition, caused by neglect or inattention on the part of his predecessor, he shall immediately report the facts to the inspector, who shall thereupon investigate the matter, and if the former engineer has been culpably derelict of duty shall suspend or revoke his license.

Sec. 9. It shall be the duty of every licensed engineer when he vacates a position as engineer to notify the boiler inspector of such fact, and any failure to comply with this provision shall be punishable by a suspension of the license for such period as the boiler inspector may determine.

Sec. 10. Every owner, or lessee, or agent of the owner, or lessee of any steam boiler or steam engine over ten horsepower, embraced within the provisions of this act, or any appliances connected therewith, and every person acting for such owner, lessee or agent is hereby forbidden to delegate or transfer, in any manner whatsoever, the responsibility and liability for the management or operation, or the maintenance in good condition and repair, of any such steam boiler or steam engine, or appliances connected therewith, to any person or persons other than the licensed engineer in charge thereof, as shown by compliance with section two of this act, and any violation of the provisions of this section shall be deemed to be a misdemeanor, and shall be punished by a fine not exceeding five hundred dollars (\$500), or by imprison-

ment not exceeding three months, or both, at the discretion of the court: *Provided, however,* That on the purchase or agreement to purchase a new steam boiler or steam engine over ten horsepower, or appliances connected therewith, the builder or builders thereof may contract or agree with the purchaser or purchasers to accept said responsibility, for a period not to exceed sixty days; provided, that there is to be a licensed engineer in attendance thereon.

SEC. 11. All fees received under this act shall be paid into the treasury of the city wherein the license is granted.

SEC. 12. Any violation of the provisions of section one of this act shall be deemed to be a misdemeanor, to be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding three months, or both, at the discretion of the court.

SEC. 13. Any officer charged with a duty under the provisions of this act, who shall fail to discharge the same or comply with the requirements thereof, shall, upon conviction, be punishable by a fine not exceeding five hundred dollars, or by imprisonment not exceeding three months, or both, at the discretion of the court.

SEC. 14. This act shall take effect on and after the first day of October, one thousand eight hundred and ninety-nine.

SEC. 15. All acts or parts of acts inconsistent with this act are hereby repealed.

Approved the 18th day of April, A. D. 1899.

ACT No. 58.—*Anthracite coal mines—Main doors.*

SECTION 1. The tenth section of article ten of an act, entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith," approved the second day of June, Anno Domini one thousand eight hundred and ninety-one, * * * is hereby amended to read as follows:

All main doors shall have an attendant, whose constant duty it shall be to open them for transportation and travel and prevent them from standing open longer than is necessary for persons or cars to pass through, *unless a self-acting door is used which is approved by the inspector of the district.*

Approved the 20th day of April, A. D. 1899.

ACT No. 64.—*Sweating system—Clothing made in unhealthy places to be destroyed, etc.*

SECTION 1. Section four of an act, entitled "An act to regulate the employment and provide for the health and safety of persons employed where clothing, cigarettes, cigars and certain other articles are made or partially made, and that said articles be made under clean and healthful conditions," approved May fifth, one thousand eight hundred and ninety-seven, * * * be amended to read as follows:

SECTION 4. Any person who violates any of the provisions of this act, or refuses to comply with any requirements of the factory inspector or a deputy factory inspector as provided herein, shall be guilty of a misdemeanor, and on conviction shall be punished by a fine of not less than twenty dollars nor more than fifty dollars for a first offense, and not less than fifty dollars nor more than one hundred dollars for a second offense, or imprisonment for not more than ten days; and for a third offense by a fine of not less than two hundred and fifty dollars and not more than thirty days imprisonment; *and it shall also be lawful for the factory inspector or any of his deputies, and each and every one of them are hereby authorized and empowered to seize, take charge of, condemn and destroy any or all clothing found that is being made or partially made or manufactured in unhealthy or unsanitary places, or where there are contagious or infectious diseases, in violation of the provisions of this act of assembly.*

Approved the 28th day of April, A. D. 1899.

ACT No. 74.—*Bituminous coal mines—Oils.*

SECTION 1. Section four, article eight of an act, entitled "An act relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein," approved the fifteenth day of May, Anno Domini one thousand eight hundred and ninety-three, * * * is hereby amended to read as follows:

SECTION 4. No explosive oil shall be used or taken into bituminous coal mines for lighting purposes, *except when used in approved safety lamps*, and oil shall not be stored or taken into the mines in quantities exceeding five gallons. The oiling or greasing of cars inside of the mines is strictly forbidden unless the place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point. Not more than one barrel of lubricating oil shall be permitted in the mine at any one time.

Only a pure animal oil or pure cotton-seed oil, or oils that shall be as free from smoke as pure animal or pure cotton-seed oil, shall be used for illuminating purposes in any bituminous mine. Any person found knowingly using explosive or impure oil, contrary to this section, shall be prosecuted as provided for in section two of article twenty-one of this act.

Approved the 28th day of April, A. D. 1899.

ACT No. 75.—*Convict labor.*

SECTION 1. From and after the passage of this act, it shall and may be lawful to require every male prisoner now or hereafter confined within any jail or workhouse in this Commonwealth to do and perform eight hours of manual labor each day of such imprisonment, except on Sundays or such legal holidays as are now or may hereafter be established by law; no steam, electricity or other motive power except manual labor shall be used in the conduct of the said labor, or employment, or on any part thereof.

SEC. 2. The labor to be done or performed shall be classified, fixed and established, from time to time, by a prison board, which is hereby created in and for each county in this Commonwealth, and to be constituted as hereinafter set forth, and shall be subject to such rules and regulations as shall be adopted by said prison board to secure humane treatment of said prisoners, and provide continuous and healthful employment for them within or without such jails or workhouses.

SEC. 3. In counties constituting a separate judicial district, and where more than one court of common pleas exists by law, the judge, junior in commission, with the sheriff and the county commissioners, shall compose such board in the respective counties. Where a county is a separate judicial district, with one court of common pleas, the president judge thereof, with the county commissioners and sheriff, shall compose the said prison board. Where a judicial district consists of more than one county, the prison board shall consist of the president judge, in the county where he resides, with the sheriff and county commissioners; and, in counties having no resident law judge, the associate judge, junior in commission, with the sheriff and county commissioners of each county, shall compose the prison board: *Provided however,* That in counties where jails or workhouses are managed and controlled by a board of managers, trustees or inspectors, under existing laws, such board of managers shall constitute the prison board for such inspection.

SEC. 4. The prison board so constituted and each of them, within their respective counties, and subject to the rules and regulations to be established under the provisions of section two of this act, and under such control and management as shall be therein and thereby provided, shall have full power and authority to require and compel the said male prisoners to work on public highways outside of the limits of the jails and workhouses, but within their respective counties. The preference to be given to public roads leading to and from county seats—all roads to be made to conform in grade and width to the general road laws of the State—and, in order that the work done may be equitably distributed, no more than five miles shall be completed on any road until a like mileage has been completed on each and all main roads connecting with county seats, and thereafter work shall be done in like sections, of five miles, until all said roads are improved in grade, width and quality.

SEC. 5. All moneys received under the provisions of this act for labor done within such jails and workhouses, or the products of such labor sold, shall be credited on account of the receipts and expenditures paid to and for the maintenance of such institutions.

SEC. 9. This act shall not be construed as a repeal or modification of the act, entitled "An act limiting the number of inmates of the State prisons, penitentiaries, State reformatories and other penal institutions within the State of Pennsylvania to be employed in manufacturing goods therein, and prohibiting the use of machinery in manufacturing said goods," approved June eighteenth, one thousand eight hundred and ninety-seven, Pamphlet Laws one thousand eight hundred and ninety-seven.

Approved the 28th day of April, A. D. 1899.

ACT No. 100.—*Convict labor.*

SECTION 1. Section one * * * of an act of assembly, entitled "An act limiting the number of inmates of State prisons, penitentiaries, State reformatories and other penal institutions within the State of Pennsylvania to be employed in the manufacturing of goods therein, and prohibiting the use of machinery in manufacturing said goods" * * * is hereby amended to read as follows:

That from and after the passage of this act no warden, superintendent or other

officer of any State prison, penitentiary or State reformatory, having control of the employment of the inmates of said institutions, shall employ more than five per centum of the whole number of inmates of said institutions in the manufacture of brooms and brushes and hollow ware, and ten per centum in the manufacture of any other kind of goods, wares, articles or things that are manufactured elsewhere in the State, except mats and matting, in the manufacture of which twenty per centum of the whole number of inmates may be employed.

That section two * * * is hereby amended to read as follows:

That the officers of the various county prisons, workhouses and reformatory institutions within the Commonwealth of Pennsylvania shall not employ more than five per centum of the whole number of inmates in said institutions in the manufacture of brooms and brushes and hollow ware, and ten per centum in the manufacture of any other kinds of goods, wares, articles or other things that are manufactured elsewhere in the State, except mats and matting, in the manufacture of which twenty per centum of the whole number of inmates may be employed: *Provided*, This act shall not apply to goods manufactured for use of the inmates of such institutions.

Approved the 28th day of April, A. D. 1899.

RHODE ISLAND.

ACTS OF 1899.

CHAPTER 708.—*Additional duties and powers of factory inspectors.*

SECTION 1. The factory inspectors created under section 3 of chapter 68 of the General Laws shall, in addition to their duties therein provided, enforce the provisions of section 22, chapter 198, of the General Laws [limiting the hours of labor for women, and children under 16, to 10 hours per day], and of any acts in amendment thereof and in addition thereto, and may prosecute all violations of the same before any court of competent jurisdiction in the State.

SEC. 2. The said factory inspectors shall not be required to give surety nor personal recognizance for costs in making complaints in accordance with the provisions of section 1 of this act.

SEC. 3. This act shall take effect on and after its passage.

Passed September 20, 1899.

SOUTH DAKOTA.

ACTS OF 1899.

CHAPTER 114.—*Mortgages on mining claims to be posted before miners, etc., are employed.*

SECTION 1. All owners of mining claims wishing to employ miners, carmen, or other laborers on their mining property shall before employing such miners, carmen, or laborers, post or cause to be posted in a conspicuous position on said mining property a true copy of all mortgages or other incumbrances lying against said mining property.

SEC. 2. Failure to observe the provisions of this act shall subject said owner or employer to a fine of not less than one hundred nor more than one thousand dollars, or imprisonment for not more than thirty days, or both.

SEC. 3. All acts and parts of acts in conflict with the provisions of this act are hereby repealed.

Approved February 23, 1899.

TEXAS.

ACTS OF 1899.

CHAPTER 153.—*Protection of workmen in the right of organization, etc.*

SECTION 1. From and after the passage of this act it shall be lawful for any and all persons engaged in any kind of work or labor, manual or mental, or both, to associate themselves together and form trades unions and other organizations for the purpose of protecting themselves in their personal work, personal labor, and personal service, in their respective pursuits and employments.

SEC. 2. And it shall not be held unlawful for any member or members of such trades unions or other organization or association, or any other person, to induce or

empt to induce by peaceable and lawful means, any person to accept any particular employment, or quit or relinquish any particular employment in which such person may then be engaged, or to enter any pursuit, or refuse to enter any pursuit, quit or relinquish any pursuit in which such person may then be engaged; *Provided*, That such member or members shall not have the right to invade or trespass on the premises of another without the consent of the owner thereof.

sec. 3. But the foregoing sections shall not be held to apply to any combination, combinations, association or associations of capital, or capital and persons, natural or artificial, formed for the purpose of limiting the production or consumption of goods or products, or for any other purpose in restraint of trade; *Provided*, That nothing herein contained shall be held to interfere with the terms and conditions of private contract with regard to the time of service, or other stipulations between employers and employees; *Provided further*, That nothing herein contained shall be construed to repeal, affect or diminish the force and effect of any statute now existing on the subject of trusts, conspiracies against trade, pools and monopolies.

sec. 4. Whereas, it is essential and desirable that this bill should go into effect at the earliest practicable moment, therefore an emergency and an imperative public necessity exists, requiring the suspension of the constitutional rule requiring bills to read on three several days, and said rule is so suspended, and this act shall take effect and be in force from and after its passage, and it is so enacted.

Approved May 27, 1899.

WYOMING.

ACTS OF 1899.

CHAPTER 5.—*Trade-marks of trade unions, etc.*

SECTION 1. Any person, association or union may adopt a label, trade-mark, stamp or form of advertisement not previously owned or adopted by any other person, association or union, and may file the same for record in the office of the secretary of state, by leaving two copies, counterparts or facsimiles thereof, with said secretary; he shall file therewith a certificate specifying the name or names of the person, association or union so filing such label, trade-mark, stamp, or form of advertisement, and its residence, location or place of business, the class of merchandise and the particular description of goods comprised in such class to which it has been or is intended to be appropriated, and the length of time, if any, during which it has been used. Such certificates shall be accompanied by a written declaration, verified under oath by the person or some officer of the association or union by whom it is made, to the effect that the party so filing such label, trade-mark, stamp or form of advertisement, has a right to the use of the same, and that no other person, firm, association, union or corporation has the right to such use, either in the identical form or in any such near resemblance thereto as may be calculated to deceive and that the facsimiles, copies or counterparts filed therewith are true and correct. There shall be paid for such filing the fee of five dollars. Said secretary shall deliver to such person, association or union so filing the same, a duly attested certificate of the record of the same, for which he shall receive the fee of five dollars. Such certificate of record shall, in all suits and prosecutions under this act, be sufficient proof of the adoption of such label, stamp, trade-mark or form of advertisement. No label, trade-mark, stamp or form of advertisement shall be recorded that would reasonably be mistaken for a label, trade-mark, stamp or form of advertisement already on record.

sec. 2. The secretary of state is authorized to make rules and regulations, and prepare forms for the filing of labels, trade-marks and forms of advertisement under the provisions of this act.

sec. 3. The owner of any such label, trade-mark, stamp or form of advertisement ordered as provided in section 1 of this act, may proceed by suit to enjoin the manufacture, use or sale of any such counterfeits or imitations, and all courts having jurisdiction thereof, shall grant injunctions to restrain such manufacture, use or sale, and shall award the complainant in such suit such damages resulting from such wrongful manufacture, use or sale as may by said court be deemed just and reasonable, and shall require the defendant to pay to such person, association or union the profits derived from such wrongful manufacture, use or sale; and such court may order that all such counterfeits or imitations in the possession or under the control of any defendant in such case be delivered to an officer of the court, or to the complainant, to be destroyed. In all cases where such association or union is not incorporated, suits under this act may be commenced and prosecuted by an officer

of such association or union, on behalf of and for the use of such association or union, and every member of such association or union shall be liable for costs in any such proceedings.

SEC. 4. Every person, who, without authority from the owner of a label, trade-mark, stamp or form of advertisement recorded as aforesaid, shall make or use any counterfeit or imitation of such label, trade-mark, stamp, or form of advertisement, knowing the same to be counterfeit or imitation, and every person, who, without authority from such owner, shall affix, impress or use such label, trade-mark, stamp or form of advertisement upon any goods shall be punished by a fine not exceeding two hundred dollars, or by imprisonment not exceeding one year, or by both such fine and imprisonment.

SEC. 5. Every person who shall sell goods upon which such label, trade-mark, stamp or form of advertisement recorded as aforesaid, or any counterfeits or imitations thereof, shall be unlawfully impressed, affixed or used, shall be punished by a fine not exceeding two hundred dollars, or by imprisonment not exceeding one year, or by both such fine and imprisonment, unless such person shall show that at the time such goods came into his possession he did not know that the impression, affixing or use of such label, trade-mark, stamp or form of advertisement was unlawful.

SEC. 6. In any suit or prosecution under the provisions of this act the defendant may show that he or it was the owner of such label, trade-mark or form of advertisement, prior to its being filed under the provisions of this act, and that it has been filed wrongfully or without right by some other person, association or union.

SEC. 7. This act shall not be construed as to apply to brands, marks or tags on live stock.

SEC. 8. This act shall take effect and be in force from and after its passage.

Approved February 7th, A. D. 1899.

CHAPTER 15.—*Hospital for miners.*

SECTION 1. Sections 3, 4, 5, 6, 7, 8, 9, 10 and 11 of chapter 81 of the session laws of 1890-91, the same being entitled "An act providing for the establishment of a hospital for miners, who shall become disabled or incapacitated to labor while working in the mines of the State, and to provide for the location and government of the said hospital, and for other purposes," approved January 10, 1891, is [are] hereby repealed.

SEC. 2. This act shall take effect and be in force from and after its passage.

Approved February 11th, A. D. 1899.

CHAPTER 29.—*Free text-books for public schools.*

SECTION 1. Boards of school directors in city or county are hereby empowered, and it is made their duty, to purchase all text-books necessary for the schools of such city, town or district; * * *

SEC. 9. All books purchased by district boards, as hereinbefore mentioned, shall be held as the property of the district and loaned to pupils of the school while pursuing a course of study therein, free of charge; * * *

Approved February 16th, A. D. 1899.

RECENT GOVERNMENT CONTRACTS.

[The Secretaries of the Treasury, War, and Navy Departments have consented to furnish statements of all contracts for constructions and repairs entered into by them. These, as received, will appear from time to time in the Bulletin.]

The following contracts have been made by the office of the Supervising Architect of the Treasury:

BOSTON, MASS.—July 10, 1900. Contract with Chas. King & Co., Brookline, Mass., for laundry building and isolation ward for marine hospital, \$10,900. Work to be completed within four months.

SPRINGFIELD, MASS.—July 13, 1900. Contract with Geo. M. Burnham for alterations and additions to post-office, \$15,095. Work to be completed within four months.

WASHINGTON, D. C.—July 14, 1900. Contract with L. L. Leach & Son for construction, except heating apparatus, electric wiring and conduits, of extension, including alterations, for Bureau of Engraving and Printing, \$76,000. Work to be completed within six months.

NEW BRIGHTON, PA.—July 18, 1900. Contract with Campbell Building Co., Chicago, Ill., for completion, except heating apparatus, electric wiring, and conduits, of post-office, \$48,218. Work to be completed within nine months.

STREATOR, ILL.—July 21, 1900. Contract with M. Yeager & Son, Danville, Ill., for construction, except heating apparatus, electric wiring, and conduits, of post-office, \$23,288. Work to be completed within one hundred and eighty working days.

MONMOUTH, ILL.—July 21, 1900. Contract with M. Yeager & Son, Danville, Ill., for construction, except heating apparatus, electric wiring, and conduits, of post-office, \$26,973.20. Work to be completed within one hundred and eighty working days.

ELLIS ISLAND, N. Y.—July 30, 1900. Contract with Gaylord & Eitapenc, Binghamton, N. Y., for high pressure and exhaust steam-water and drain pipe connections, etc., for boiler house, \$19,409.

BOSTON, MASS.—August 21, 1900. Contract with G. P. Bullard & Co. for extension mezzanine floor for post-office and subtreasury, \$21,920. Work to be completed within one hundred and two days.

BOSTON, MASS.—August 25, 1900. Contract with Thos. J. Hind for renewal of roof covering, etc., of post-office and subtreasury, \$43,975. Work to be completed within one hundred and fifty days.

WASHINGTON, D. C.—September 5, 1900. Contract with Noble H. Thomas for construction, except heating apparatus, etc., of outbuildings for Bureau of Engraving and Printing, \$76,700. Work to be completed within six months.

ELLIS ISLAND, N. Y.—September 5, 1900. Contract with Attilio Pasquini, New York, N. Y., for construction of surgeon's house, including heating and ventilating but not electric wiring, and construction, except heating and ventilating and electric wiring, of hospital outbuilding, ferry house, and covered way, \$52,392. Work to be completed within nine months.

ELLIS ISLAND, N. Y.—September 5, 1900. Contract with E. Rutzler, New York, N. Y., for heating and ventilating apparatus in hospital, hospital outbuilding, kitchen and restaurant, bath and laundry, connecting corridor and covered ways, including boiler and setting in hospital, and main exhaust pipes in covered ways, \$28,833. Work to be completed within six months.

TOPEKA, KANS.—September 10, 1900. Contract with Chafer & Becker, Cleveland, Ohio, for extension and modification in steam-heating apparatus in court-house and post-office, \$4,468.80. Work to be completed within ninety days.

NEW YORK, N. Y.—September 20, 1900. Contract with Remington & Sherman Company, Philadelphia, Pa., for new money vaults and toilet room and incidental work at the United States subtreasury building, \$73,000. Work to be completed before March 15, 1901.

BOSTON, MASS.—September 28, 1900. Contract with C. H. Cronin for reconstruction and repairs of plumbing and sanitary system in post-office and subtreasury building, \$16,750. Work to be completed within one hundred and fifty days.



BULLETIN

OF THE

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THE BETTERMENT OF INDUSTRIAL CONDITIONS.

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In order to ascertain in some degree the character, extent, and effect of different plans in operation in various parts of the United States, looking to industrial improvement and the elevation of workingmen, numerous establishments have been visited in which the practical workings of such plans have been observed, and from which accounts concerning them have been secured. There has been no attempt to make such investigation exhaustive, but merely to present a large number of examples of typical establishments. No statistical presentation of these different plans can be made, but brief descriptive accounts of them are given, which it is hoped will induce large employers of labor, whose attention has not heretofore been called to them, to at least give consideration to the question as to whether some of the plans mentioned can not be profitably introduced in their establishments.

The various measures for the improvement of the condition of workingmen, found in successful operation in the establishments visited, may be summarized as follows:

1. Club organizations in which employees are banded together for social, educational, recreative, and other purposes incident to such associations.
2. The encouragement of physical culture by means of gymnasiums, calisthenics, baseball, bicycle, and similar clubs.
3. The improvement of intellectual conditions by means of free lectures, libraries, kindergartens, and educational classes.
4. The increasing of industrial efficiency through industrial schools and manual-training classes.

5. The advancement of spiritual life by means of Sunday schools and general religious work.

6. The cultivation of musical taste and ability by means of concerts and musical entertainments for employees, and the encouragement of musical clubs and organizations among them.

7. The promotion of improved social conditions by means of social gatherings, summer outings, meeting places, and game rooms for employees, banquets, dances, etc.

8. The sharing of profits with employees.

9. The promotion of employees' personal interest in the successful conduct of the business by encouraging and assisting them to purchase shares in it, thus, in effect, taking them into partnership.

10. The improvement of domestic conditions by means of improved dwellings, instruction in sewing, cooking, and housekeeping, and in landscape and kitchen gardening and the exterior and interior decoration of homes.

11. The care for employees' health and comfort by means of bathing facilities, dining and lunch rooms, the furnishing of hot lunches to female employees, and by improved sanitary construction and appliances.

12. The care of sick and disabled employees and their families by means of free insurance, free medical attendance or hospital facilities, and by the encouragement of beneficial organizations.

13. The cultivation of thrift through savings bank facilities, building associations, or provident organizations, and by the giving of prizes for valuable suggestions of employees and rewards for faithful service or the manifestation of zeal and interest in their employment.

14. The rendering of financial aid to employees in cases of hardship or distress.

15. The manifestation of interest in the personal affairs of individual employees, the cultivation of cordial and even confidential relations with them, and the promotion of their welfare in all possible ways.

All the plans and ideas outlined above have been tested, and are now in successful operation. The experience of the employers who have adopted such of them as the exigencies or the character of their business would permit proves that they are worthy of more general adoption, not only because of their beneficial effect upon the employed, but also for the reason that they result in decided business improvement from a purely financial standpoint. The accounts following, gathered from some of the establishments in which the efficacy of the plans described have been demonstrated, give ample proof of their social and economic value.

STEEL WORKS CLUB, JOLIET, ILL.

A number of years ago, sometime in the eighties, several of the principal stockholders and officers of the Joliet Steel Company decided to carry into effect the idea that improved social and intellectual conditions among the employees would not only promote their welfare but would advance the material interests of the company. At first the plan was simply to furnish a resort for the men during their leisure hours, and to this end a generous sum of money was offered the city of Joliet wherewith to equip a public library and reading room. The proposition was not accepted by the city and, other attempts to operate through outside agencies having failed, the company decided to act for itself, with the result that in 1889 the beautiful structure now occupied by the Steel Works Club was erected and partially equipped at a cost of \$53,000. The club was organized in December, 1889, with 100 members, a charter was secured, and the clubhouse with its appurtenances was leased to it for the nominal sum of \$1 per year, the company agreeing to make good at any time any deficiencies arising in the exchequer of the club.

The building is an imposing stone structure with harmonizing surroundings and grounds in which a fine tennis court is maintained. The basement of the building contains a gymnasium 45 feet square and 24 feet high, fully equipped with modern athletic appliances. In another part of the basement is a hand-ball court, 32 feet square, adjoining which is a bowling alley. In addition, this part of the building contains 16 bathrooms, 6 shower baths, a pool for plunge baths, all supplied with hot and cold water, together with dressing rooms, lockers, and all necessary conveniences. The basement also contains the sleeping apartments of the janitors, and a barber shop in which club members and other employees of the company are served at very low prices.

The main floor consists of a large reception room elaborately furnished and decorated with statuary, paintings, and bas-reliefs; a spacious room devoted to social games, such as cards, checkers, etc.; a library containing in the neighborhood of 6,000 volumes; a reading room; a billiard room with 6 tables, and the superintendent's office. The upper floor has a large lecture hall and entertainment room equipped with stage and dressing rooms and capable of seating 1,100 people. Other rooms on this floor are devoted to educational purposes, and there is an art gallery containing many examples of the best in painting and statuary. There is also a music room with a \$1,000 grand piano, which, as well as many of the pictures, statues, and minor accessories, was presented to the club by individual stockholders of the company. The building is heated by steam, and is provided with both gas and electricity for lighting. It is open to members on week days from 7 a. m. until 9.45 p. m., on Saturdays until 10.45 p. m., and on Sundays and holidays until noon.

Only employees of the steel company are eligible to membership in the club. The dues are \$2 per year, and the members are subject to no other charges except a fee of 50 cents per month for participation in educational classes. The entire expense of maintenance, light, heat, care, and repair of the property, and all costs of administration, such as salaries of the superintendent, librarian, physical director, and janitors, are paid by the steel company. The dues paid by members are devoted to incidental expenses, such as pay of kindergarten teachers, printing, soap, towels, etc.

During the ten years of the club's existence its membership has fluctuated constantly and greatly. During periods of industrial depression it has diminished and has correspondingly increased with the revival of trade. In 1895-96 the club had about 1,200 members as against 300 in 1893, in 1897 only 500 of the company's employees were members, and in the summer of 1899 there were 650.

The club supplements the revenues derived from members in the shape of dues by giving, at frequent intervals, theatrical and literary entertainments, which are well attended by the general public. The funds derived from this source usually provide the club with sufficient means for its purposes. The privileges of the club are in many cases extended to the families and friends of the members; for example, in the large hall, social affairs, dances, and the like are of frequent occurrence, and the bathing facilities, at stated times, are free to the females of members' families.

The library and reading room are supplied with the leading magazines and newspapers, and these, with the billiard and recreation rooms, the gymnasium, baths, tennis court, and other features give constant opportunities for mental and physical recreation and culture, and are largely taken advantage of. Stationery and conveniences for letter writing are furnished the members free of charge. Instruction is given, under the direction of competent teachers, in mechanical drawing, mathematics, vocal music, penmanship, stenography, and any other branches which the members desire to pursue, and a kindergarten is maintained to which the children of members may be sent without charge.

In connection with the club there is an organization known as the "Ladies Auxiliary," composed of the wives and daughters of club members, who are given free use of the clubhouse for their meetings and for social gatherings and entertainments conducted under their direction.

The members of the club are enabled to reduce their family expenses through the purchase, in large quantities at lowest rates, of domestic supplies, such as coal or flour. These supplies are bought at wholesale through the officers of the club, and are sold to the members at

The business affairs of club members are attended to, when

desired, by the superintendent of the club, who is always ready to meet and advise with them upon any subject within the scope of his experience.

The beneficial effects of this organization upon its members and their families and the community generally have been incalculable, while the officers of the steel company are very emphatic in the assertion that the money they have furnished for erecting and equipping the clubhouse and in aiding the club has proved a good investment, considered from a purely commercial standpoint.

JOHNSTOWN ATHLETIC CLUB, JOHNSTOWN, PA.

This is a purely athletic organization, composed almost exclusively of employees of the Cambria Steel Company. It was organized in 1890, and after a varied experience of alternate prosperity and adversity was finally reorganized in February, 1898. Its affairs are now in a highly satisfactory condition, though its membership is not so large as formerly, numbering 210 as against over 500 two years ago.

The club has the free use and control of a large and well-equipped gymnasium, which was built and furnished with complete apparatus by the Cambria Steel Company, in conjunction with Andrew Carnegie, at a cost of about \$15,000, and occupies a large portion of the library building erected and presented to the city of Johnstown by Mr. Carnegie. The club has also one of the finest bicycle race tracks and baseball fields in the country, having a grand stand with a seating capacity of 2,000 and surrounded by an immense level field.

The club is fostered and encouraged in all possible ways by the steel company. The members pay small fees and dues, which, in connection with the receipts derived from athletic exhibitions, yield a sufficient revenue to pay the expenses of the club. That its influence has been highly beneficial is beyond question.

THE CARNEGIE CLUB OF BRADDOCK, BRADDOCK, PA.

In January, 1889, the Carnegie Library building was completed, stocked with books, and presented to the town of Braddock, Pa. Subsequently Mr. Carnegie added to his original gift, and the edifice was enlarged so as to make it a superb home for the Carnegie Club of Braddock.

The club portion of the handsome building was informally opened in January, 1895, and contains most complete and effective appliances for its members' well-being and comfort. It has a beautiful theater, with an ample stage, full supply of scenery and accessories, and a seating capacity of 1,200. The swimming pool in the basement is one of the finest and largest in the country. The gymnasium is spacious, and is provided with every modern device for the development of muscle and the promotion of health. There are also a fine billiard

room, containing 5 billiard and 4 pool tables, bathrooms, bowling alleys, separate bath and billiard rooms for ladies, card rooms, reading rooms, instruction rooms for classes, and dark room for developing photographs by club members—in fact, the club possesses a home perfectly adapted to its needs and in every way inviting. The general architectural effect of the building is full of dignity and beauty, and its location is fine and commanding.

The affairs of the club are managed by a superintendent, appointed by Mr. Carnegie, in conjunction with a board of trustees. The members have no voice in its management, but are entitled to enjoy all its facilities and privileges by simply paying their quarterly dues. Employees of the steel company are admitted to membership upon payment of dues at the rate of \$1 per quarter. Other citizens of Braddock, not employees, may become members at the rate of \$2 per quarter, and boys, under 18 years of age, who are sons or brothers of members, are permitted the use of the baths, are given instruction in gymnastics and swimming, and accorded various other privileges for 50 cents per quarter. Ladies are also given special advantages in the way of separate bathing and billiard rooms and instruction in swimming and gymnastics, with the services of a female attendant, for \$1 per quarter. The revenues of the club are supplemented by annual contributions by its founder of such amounts as may be necessary to meet its expenses.

Courses of lectures and entertainments are provided, regardless of expense, which the club members have the privilege of attending at nominal prices of admission. Educational classes are conducted in bookkeeping, shorthand, mechanical drawing, commercial arithmetic, instrumental music, photography, and other subjects, as desired, at a cost to club members of 50 cents per month. An organ, costing \$15,000, has recently been presented to the club by its founder. A number of additional features were contemplated when the information here given was secured, among which may be mentioned an industrial class for girls, furnishing instruction in sewing, knitting, etc., a savings bank for the children of members, an orchestra and a brass band composed exclusively of club members, banking facilities, a free kindergarten for members' children, and a barber shop.

The membership of the club in the latter part of 1899 was about 750, of which about 500 were employees of the steel company, the remainder being principally ladies and boys under 18 years of age.

HOMESTEAD LIBRARY ATHLETIC CLUB, HOMESTEAD, PA.

This club, which was organized in August, 1898, upon the completion and opening of the Carnegie Library at Homestead, Pa., is similar in character to the Carnegie Club of Braddock. Its membership consists mainly of employees of the Homestead Steel Works, though sons of the town, not employees, may be admitted.

The library building occupied by the club was erected and equipped by Mr. Andrew Carnegie at a cost of about \$250,000. The material of the building is Pompeian brick, and its exterior dimensions are 228 by 133 feet. It consists of three divisions—the music hall, occupying the eastern end, the club, the western end, and the library, the central portion of the building.

The portion of the building which is devoted to the uses of the Library Athletic Club contains in the basement a tile-lined swimming pool 36 by 68 feet, with accompanying dressing rooms. Connecting with this is the basement of the library, where there are 18 bathrooms for men and 4 for women. Besides the pool under the club there are 2 bowling alleys. In the first story of the club are 2 billiard rooms containing 10 tables with their accompanying seats and racks and 2 recreation rooms. The second story and roof space are thrown open for one large gymnasium fitted with all necessary equipments.

The entire establishment is under the general supervision of a board of directors appointed by Mr. Carnegie, but it is the purpose of the founder of the club to leave its management in the hands of its members as far as possible, and to this end it is provided that a board of control consisting of nine members, shall be elected annually from and by the club membership, which shall regulate the internal affairs of the club, and, in connection with the superintendent, have control of field sports and athletic events, selecting players for the various teams that may be organized and arranging for games, contests, tournaments, etc. A competent superintendent is in charge and in constant attendance, whose duty it is to look after the successful operation of the club and the athletic department. There is also a trained physical director for the gymnasium, and various assistants for the care of the building and grounds and the convenience of the club. It is intended that the club shall become self-supporting by securing a large membership, but until this is accomplished the income of the club from membership fees and other sources will be supplemented by appropriations out of the general library fund, contributed by the founder.

The club has three classes of membership, viz, full, junior, and ladies. Males over 18 years of age are admitted to full membership, entitling them to all the privileges of the clubrooms and grounds, upon payment of a fee of \$1.50 per quarter, if employees of the steel company, or \$2 per quarter if not such employees; males under 18 years of age are admitted to junior membership by paying 50 cents per quarter, which entitles them to all the privileges of the club except the use of the billiard and card rooms. Ladies may become members by the payment of \$1 per quarter, which entitles them to use the clubrooms on at least two afternoons each week, together with the use of the grounds upon application to the superintendent. The clubrooms, including the baths and gymnasium, are open daily, except Sundays,

from 9 a. m. to 9 p. m. from April to September, and from 9 a. m. to 10.30 p. m. from October to March. In addition, the baths are open Sunday mornings from 9 to 12 o'clock. The club membership has varied from, approximately, 600 in summer to 1,100 during the winter. About half the members are employees of the steel company, the remainder being principally ladies and boys, largely members of employees' families.

It is the intention of the management to provide for courses of instruction, lectures, and entertainments, and for evening classes in various branches.

METROPOLITAN STREET RAILWAY ASSOCIATION, NEW YORK, N. Y.

This is a beneficial and social club, organized in February, 1897, with membership confined to employees of the Metropolitan Street Railway Company of New York City. It was incorporated under the laws of New York with 150 members; in July, 1899, its membership had risen to 2,643, and was constantly increasing. The payment of 50 cents per month as dues entitles a member to receive financial aid in case of disability arising from sickness or accident, not to exceed \$200 in a year, or \$150 is paid the representatives of a member in case of his death. It is mainly through its social features, however, that this club has been able to attain its great prosperity and to wield a powerful and beneficial influence among the railway company's employees.

The club holds regular monthly meetings for business and social purposes in the commodious rooms which the railway company has provided and furnished for it at the corner of Seventh avenue and Fiftieth street. These rooms consist of a large assembly hall, with a seating capacity of 450, and a library and reading room, which is also used for correspondence purposes, social games, etc. The rooms are open daily to the members, except Sundays, from 9 a. m. until 10 p. m. They are constantly patronized, as a place of regular resort, by the club members while not on duty, bringing them into friendly intercourse and giving them opportunity for rest, recreation, or intellectual diversion, and enabling them to spend their leisure hours away from saloons or other undesirable resorts where they would otherwise be almost compelled to congregate.

The secretary, who has general control of the club's affairs, is in daily attendance, his office being in the club's library room, and he is at all times ready to render assistance or give counsel to the men in their personal affairs. His salary is paid wholly by the railway company as is also that of the librarian, who, in addition to his regular duties, aids the secretary in his work. The circulating library contains 1,500 volumes of miscellaneous literature, together with the current magazines and papers, all furnished by the railway company.

The rooms are cared for, heated, and lighted by the railway company, without expense to the club; in fact, the club has no expense of administration whatever, all requirements in that direction being provided for by the company, which also makes frequent cash contributions to the club's treasury in order to enable it to promptly meet its obligations in the payment of disability and death benefits for which its regular revenue from membership dues is insufficient. The club also employs a physician, for whose services each member pays a small sum monthly, who gives regular medical attention whenever it is needed by the members or their families.

At the regular monthly meetings, after the transaction of its ordinary business, the club devotes the evening to social entertainment. The exercises consist of singing, instrumental music, recitations, addresses by members or invited guests, and occasionally of vaudeville features by either members or outside invited talent. The assembly room is provided with a piano.

Once a year a theatrical entertainment is given in one of the larger New York theaters, to which all the employees of the company with their families are invited. This entertainment is managed entirely by the club, which secures the best theatrical talent from the various New York theaters, but the entire expense of it is paid for by the railway company. During the summer of each year an excursion and picnic is arranged and conducted under the auspices of the club, and, similarly, each winter a grand ball is given, for which tickets are sold to the company's employees, the surplus arising from such sale being used in the payment of financial benefits to which the members or their families may be entitled.

This organization, outside of the good accomplished by its insurance features, has brought about and fostered a very cordial feeling between the company and its employees; has brought the men into closer acquaintance and relationship with each other, and promoted a general feeling of good-fellowship among them; has kept them from the streets or saloons during their hours of leisure; and has distinctly benefited them, morally, socially, and intellectually.

THE NATIONAL CASH REGISTER COMPANY, DAYTON, OHIO.

The advanced methods and liberal policy pursued by the National Cash Register Company, of Dayton, Ohio, in its business and social relations with its employees, who number about 2,000, have attracted widespread attention and commendation among sociologists and economists; and the example they have established, coupled with the indubitable proof they give that "it pays" to foster and advance the moral, social, intellectual, and physical well-being of the wage-earner, is resulting in the practical adoption of their ideas and many of their special plans by manufacturers in various sections of the country.

Among the many beneficent things which this company has accomplished, the organization of its employees into clubs and societies is prominent. The advantages of these organizations, as stated by one of the company's officials, are, first, the creation of an esprit de corps among the employees, and the improvement of their morale as well as that of their families and all the neighborhood; second, they result in more intelligent labor, and enable the company to command a higher class of people; third, having a better class of people, the company secures better work and more of it, the employees being rendered more efficient and capable of performing much more and better work than formerly; fourth, they have created an atmosphere of good-fellowship and warm family interest among employees and their families, and have removed the barriers that ordinarily exist between employer and employee; fifth, the character of the workmen has been elevated, and throughout the entire city a love of better homes and a desire to do better work has been brought about; sixth, other employers have been led to see the value of these methods and to adopt them in their dealings with their employees. The principle upon which the whole system of the company is based is simply the showing of a daily personal interest in their employees' comfort and welfare.

The headquarters for the social, intellectual, and moral life of the employees is the N. C. R. House, a cottage owned by the company, which consists of the apartments occupied by the deaconess and her assistant (who are employed by the company and give their entire time to the many interests which center here); the library, the books of which circulate among the employees, and a large room which serves as a meeting place for the boys' and girls' clubs, the kindergarten, and the various sewing classes. The house is maintained by the company—light, heat, janitor's services, and furnishings all being supplied. Frequently as many as sixteen meetings per week are held by the various clubs and committees, attended by an aggregate of more than 500 people. Brief descriptions follow of the various clubs and organizations in this establishment:

The Advance Club is an organization consisting of the officers of the company, heads of departments, foremen, assistants, clerks, and from 75 to 100 of the rank and file from the different departments of the factory. The club meets at irregular periods, on the call of the president of the company, in a commodious hall specially provided for the purpose. The design of the club is to discuss any questions that may arise of interest to the members regarding the management of the business; to hear reports of visits to prominent manufacturing establishments by those making them—the company frequently sending employees to study the work of other factories; and to consider the best methods of factory and office organization and criticise weak points therein. This club was organized in 1896. The president of

the company designates some one to preside at each meeting. The organization is informal, no elections being held nor dues paid by members.

The Woman's Century Club was organized in 1896, and in the summer of 1899 had 264 members, all female employees. It is a regular literary club, electing its own officers, outlining its own work, having its own dues for membership, and wholly controlling its own plans, the company simply furnishing a place of meeting, with light, heat, and furnishings in the hall of the Advance Club. Its meetings are of one hour's duration, bimonthly, and at noon. The meetings are conducted pursuant to regular programmes such as are usual in the Federation of Women's Clubs of which this club is a member. The club issues an annual calendar outlining its work for the ensuing year. The programmes include music, recitations, addresses, discussions, and the reading of original essays. The membership is divided into sections, each section following a particular line of study and taking a leading part in the programme at regular intervals. The expenses of the club are met by the dues paid by members, 50 cents being paid annually by each.

The Progress Club is an organization of male employees founded in 1896, and has a membership of about 400. It has the usual equipment of officers and an executive committee that plans and directs its work. Its meetings are held bimonthly, in the afternoons, in a hall provided by the company. Its dues for membership are 50 cents per year. The programme usually consists of the discussion of practical topics of interest to men—politics, religion, mechanics, science, travel, and questions pertaining to factory life. The programmes are arranged from time to time by the executive committee and are announced on the bulletin boards throughout the factory.

The Young People's Club is a social and literary society composed of the young people in the factory. Its meetings are held weekly, in the evening, at the N. C. R. House, under the general supervision of the deaconess. It has a regular organization and prepares its own programmes, which are, generally, of a literary character for the first part of the evening, followed by social features. It has a membership of 40, who pay monthly dues of 5 cents each, and its officers are elected, as in all other organizations in this factory, semi-annually.

The Outdoor Art Association was organized in 1899 and has about 50 members, who pay annual dues of \$2 each. Its purpose is to enlarge interest in landscape gardening, flower culture, and photography. The company furnishes it with whatever printing is necessary and a place of meeting.

The South Park Girls' Literary Club was organized in 1897 and has 150 members. It meets weekly in the N. C. R. House. Its

work, carried on under the direction of the deaconess, usually consists of readings and other literary exercises and in the taking of lessons in embroidery. It has its own organization and makes and carries out its own programmes and plans. The members pay weekly dues of 2 cents each.

The Boys' Garden Club has been in existence since 1896, and consists of about 50 boys who are taught during the summer the best methods of vegetable gardening. The company furnishes two acres of ground, tools, seed, and competent instructors, and offers prizes amounting to \$50 per year for the best work accomplished by club members. The results have been remarkable and the interest taken in the club's success, by both old and young, highly encouraging.

The Boys' Club was organized in 1897 and has 120 members. It includes sons of employees and boys of the neighborhood between 12 and 16 years of age. Its meetings are held one night each week, in the N. C. R. House, under the direction of the deaconess and her assistant. It has its own organization and officers, and makes its own programme of exercises, which are usually literary and debating. The members of this club form a part of the Boys' Military Brigade and are equipped with quaker guns, and uniforms supplied partly by the company and partly by the members themselves. They have regular days for military training and are officered by boys employed in the factory.

The colored janitors of the factory, 24 in number, have a regularly organized Glee Club and hold periodical meetings for rehearsal. They sing popular melodies for their own pleasure and that of employees of the establishment. There is also an Autoharp Club composed of young women, who meet every week and practice under a competent leadership, and a brass band, known as the N. C. R. Band, of 20 members, which was organized in 1897. The band is furnished with instruments, uniforms, and a place to practice by the company, and in return play on special occasions for the company and employees. The band derives considerable income from outside engagements.

The N. C. R. Relief Association is a mutual insurance society, organized in 1896, in which any person who has been in the company's employ for 30 days is eligible to membership. It pays liberal disability and death benefits, has a membership approximating 1,000, and its affairs are in a prosperous condition. The company assists it by furnishing a place of meeting, light, and heat, doing whatever printing is necessary, and giving its officers, without deduction of pay, whatever time is necessary in attending to its affairs.

The Woman's Guild is an association of about 100 women, mostly wives of men employed in the factory, which was organized in 1896. The guild meets every Thursday afternoon and conducts a literary programme varied with discussions of practical questions of neighbor-

hood life or addresses by prominent visitors. It has a special committee on outdoor art, whose duty it is to encourage the beautifying of homes in the neighborhood. It also assists in the work of the boys' and girls' clubs.

Among the various beneficent features which this company has provided for the improvement of industrial conditions are the educational and other classes. In the fall of 1895 the School of Mechanics was organized by the company among its employees, and instruction was given on light, heat, power, and similar subjects. The purpose was to instruct the workmen so as to make them better qualified to perform the work required of them. Subsequently the organization of evening classes by the Y. M. C. A. led the company to encourage its people to join those classes, and there are now about 150 in regular attendance in them. In 1898 a company of young men, some of whom were studying at home, some in correspondence schools, and some in the city evening classes, organized a club under the leadership of the best trained men in the factory for the study of algebra and mechanics, and this club holds regular weekly meetings, without any expense except for materials and text-books, the company furnishing a meeting place and necessary facilities.

The Industrial School for Girls has been conducted since 1895, under the direction of the Women's Christian Association, in rooms furnished, lighted, and heated by the company. It is composed of the children of residents in the vicinity of the factory, mostly employees therein. Instruction is given for 3 hours weekly, from October 1 to June 1, in practical and plain sewing, no other branch being taught. The school has about 125 pupils.

The training of the younger children of the company's employees, and of the neighborhood, is provided for by the Kindergarten Association, which was organized in 1896 and is composed of a regular membership of 100 women, who pay 50 cents per year as dues, and an honorary membership of over 100 male employees and officers of the company, who pay from \$1 to \$10 per year. This association supplies the materials used in the kindergarten. The school is conducted 10 months in the year, and, in addition, a summer kindergarten and playground has been established, for which purpose the company has given the use of two cottages which have been united and fitted up as schools and residences for the instructors. This summer school takes care of children from 4 to 12 years of age, the regular limit being from 4 to 7. Four teachers are employed in the work of the kindergarten, 2 of whom also teach in the afternoon in the kindergarten extension, a school open to the children of a small suburb two blocks away from the factory. In the school the usual kindergarten work is conducted and in addition there is a kitchen-garden class, nature-study classes, sewing, drawing, modeling, physical culture, and choral classes, with

sloids work for the small boys, gymnastics, and physical culture. The grounds connected with the school are fitted with swings, hammocks, and games, and a small rivulet runs through them, in which the children take great delight. The importance attached to the work of these schools by the company is evidenced by a sign hung at the entrance of the factory reading: "By the year 1915 no application for a position in the factory will be considered unless the applicant, when a child, attended the kindergarten." There is also a sign reading: "Do not apply for any position, either mechanical, requiring special skill, or clerical, if not a graduate of a high school or its equivalent."

The Domestic Economy Department of the establishment is under the direction of a graduate of Pratt Institute, who has charge of the instruction of the cooking and sewing classes mentioned below, the arrangement and preparation of the lunches of the company's officers, and of those furnished daily to the female employees, without charge, in the large and beautiful dining room provided and arranged expressly for the purpose.

A cottage in the company's grounds is fitted up for the cooking school, and is equipped with a range, utensils, and a laboratory. In this school the Cooking Class for N. C. R. Women and the Cooking Classes for Girls are conducted. The class for women was organized in 1897, and is open to all young women of the factory who pay 50 cents a year to partially cover the cost of materials. The course of study is that of the best institutes, and includes plain and fancy cooking, instruction in housekeeping, marketing, and the details of domestic economy. This class is divided into two sections, and meets on Mondays and Fridays from 5.15 to 7.15 p. m. The Cooking Classes for Girls, of which there are two, are conducted for the benefit of the children of the employees and of the neighborhood. One of the classes is arranged specially for girls who work during the day, and is held each Wednesday evening; the other meets on Saturday afternoons and is open to younger children and school girls. The course of instruction covers plain cooking and the simpler details of housekeeping; and all materials and supplies for the classes are furnished by the company, free of charge.

The Sewing Class for N. C. R. Women was organized in 1898. It meets each Thursday at noon, and receives a regular course of instruction in plain and fancy sewing, similar to that followed in Pratt Institute. The instruction and place of meeting are supplied by the company, and, in 1899, 42 members were enrolled. The Summer School for Sewing was organized June 1, 1899, and has a membership of 100. It meets once each week, on Wednesday, in a room provided for the purpose, and is given instruction by an expert dress-maker, particular attention being given to the making of women's garments. On Wednesday mornings the children of employees and of

the neighborhood are taught, and in the afternoons the mothers. Each pupil pays 5 cents per lesson, which supplies sufficient funds to pay the teacher and for materials.

Besides those already described, there are other features in this establishment, all tending toward the betterment of industrial conditions.

The Boys' and Girls' Gymnasium Classes, composed of the younger members of other clubs connected with the factory, meet on Saturday afternoons. The company supplies instruction and a place of meeting, either a room or in the open air, according to the season, and a small amount of apparatus. The practice is largely calisthenics, and no charge is made for membership.

The Dancing Classes, which were organized in 1898 and 1899, are open to all the young people in the factory and to members of the boys' and girls' clubs upon payment of 50 cents each per year. The classes meet in the company's large dining hall.

The Bicycle Club is supplied with stall room for wheels and a man to care for them, and holds occasional social meetings.

In the fall of 1898 the Penny Bank was instituted for the purpose of encouraging savings by the children in the organizations connected with the establishment. The savings are by means of stamps, after the manner of the Penny Provident Association, and when the deposits reach sufficient amounts the depositors are urged to transfer them to good building associations.

The company also provides for a Sunday school, in which are enrolled over 600 of the children and youth of the neighborhood. The teachers of this school are regularly organized, the name of the society being the South Park Teachers' Association. The Sunday school is unique, its purpose being to teach, in addition to the truths of Christianity and their application to daily life, the planting and culture of flowers, the care of home, music, and similar beneficial things.

The improvement of homes in the neighborhood of the factory is encouraged, through the South Park Improvement Association, by the giving of prizes amounting to \$250 per year for the best examples of ornamental planting and vine growing, and for the best-kept houses, yards, and window boxes. Free instruction is given in the principles of decorative planting and landscape gardening. By means of free illustrated lectures examples of good and bad taste in gardening are shown, together with pictures of beautiful homes and scenes in all parts of the world.

Especial attention is given to the comfort of female employees, of whom there are more than 200. "They go to work an hour later than the men in the morning and leave 10 minutes earlier in the evening. In addition to a 10-minutes' recess each morning and afternoon, they have regular holidays during the year. This gives them 8 hours' work per day, for which they receive 10 hours' pay. They are furnished with

aprons and oversleeves, which are laundered free of charge. In factory and office rooms alike the women have chairs with high backs and foot rests. At the noon hour luncheon is served to the women in the dining room, on the fourth floor of the administration building, which is tastefully fitted up and reached by elevators. Here, free of charge, are served coffee or tea and hot portions requisite to a satisfactory luncheon, to which the women add whatever their fancy dictates from their own luncheon baskets. These luncheons are served from a model kitchen adjoining the dining room, which is a daily lesson in good housekeeping. On the opposite side of the room is a curtained rest room, with cots and easy chairs for the comfort of any of the women who at any time may be indisposed. A piano, purchased by the young women, offers opportunity for music during the intervals of the noon hour. There are also a reading room and a bookcase supplied with good literature, inviting familiarity with the best writers."

The company has fitted up a large building in the business center of the city, with stage and chairs, in which frequent lectures and entertainments are given for the employees, who are also at liberty to use the hall for meetings of their organizations or other purposes. This is in addition to the large hall in the administration building, which is handsomely fitted and furnished for similar purposes.

The male employees are given 10 hours' pay for 9½ hours' work, and are allowed time for weekly baths, as are also the women, in comfortably and conveniently arranged bathrooms.

The employees of the company are encouraged in every way to make suggestions, criticisms, or complaints of any kind, either affecting the construction of machines, the management of the business, or the relations of employees with their immediate superiors or with each other. For this purpose autographic registers are placed in every department, upon which each employee is invited to write his suggestions or criticisms, which are collected and carefully considered at frequent intervals. Many thousands of valuable suggestions have been made by the workmen and adopted by the company, which gives, every six months, prizes amounting to \$650 in gold, varying from \$5 to \$50 each, to the employees whose suggestions have been found most worthy of adoption. The presentation of these prizes is always an occasion of public interest. In the winter they are given in the opera house, with appropriate ceremonies and exercises. In summer they are held in the open air, all employees and their families uniting to make the occasion a delightful social event. The company contributes refreshments and amusements of various kinds, including day and night fireworks, and erects pavilions for dancing, and the thousands who attend have a day of thorough enjoyment.

The entire arrangement and construction of the factory is such as

to afford all employees the greatest possible amount of light and pure air, while rigid rules regarding neatness and cleanliness are enforced. Attention is constantly given to the health, comfort, convenience, education, and happiness of employees and their children and families, and the management is ever on the lookout for new plans and ideas that will contribute to these ends. The result of the company's effort to give pleasant and elevating surroundings and facilities has been a vastly increased interest and efficiency on the part of employees in their work and a corresponding increase in the profits of the company.

THE KINNARD MANUFACTURING COMPANY, DAYTON, OHIO.

President Kinnard, of this company, which is a large manufacturing concern of Dayton with many female employees, states that during the summer of 1898 considerable trouble was encountered because of the fact that the experienced force of the establishment was constantly being depleted on account of sudden illness and fainting spells among the women, as many as seven or eight a day being frequently compelled to quit work. Physicians were summoned to examine the factory and its management for the purpose of ascertaining the cause of these frequent collapses, and they all pronounced the sanitary conditions to be perfect. No cause for the excessive rate of sickness could be found, and it was finally suggested that perhaps the trouble was caused by too close application on the part of the women to their work, and that a little rest in the forenoons and afternoons would probably be found beneficial. The suggestion was promptly acted upon, and an informal calisthenics club was immediately formed, a competent instructor employed by the company, and ever since the female employees have been given 15 minutes' recess each morning and afternoon, during which all the women join in light gymnastic exercises. The effect of this has been very marked upon the health and efficiency of the women. After the calisthenics they resume their work with cheerfulness and alacrity; buoyancy of spirits and happiness of mind prevail where formerly languor and despondency ruled, and much more and better work is accomplished than before the organization of the calisthenics club.

About once each month, except during the summer, an entertainment of a musical and literary character is given, in which the programme is participated in and almost wholly carried out by the company's employees for the enjoyment and education of themselves and their friends. The company gives its employees one day each year for a picnic or outing, for which they form a committee of arrangements among themselves. The company pays all expenses connected with this annual holiday, and it always proves a very enjoyable occasion for both employers and employees, who come back to their work with renewed energy and interest.

At the time the foregoing information was furnished (in 1899) the company was arranging for the equipment of rooms in a building adjoining their factory to be used for club meetings, reading and rest rooms, and was encouraging the formation of social and literary clubs of various kinds among the employees. The effects of the company's efforts have been, in addition to improved efficiency of the employees, to bring them into closer and more pleasant relations with each other and with their employers, and to greatly enhance their moral, intellectual, and physical welfare; to make them feel that they are something more than mere toilers, and to realize that they occupy responsible positions in the estimation of the company for which they work and in the community in which they live.

LEGLER & CO., DAYTON, OHIO.

The Young Woman's Progress Club is a club composed of about 60 members, constituting in the neighborhood of three-fourths of the female employees of the manufacturing establishment of Legler & Co., of Dayton, Ohio. It originated in 1898 through the suggestion and efforts of a lady residing in Dayton who had been in the habit of visiting the factory at the noon hour and reading to the young women. The club has a regular organization, with the usual officers, and the members pay dues of 60 cents per year. It meets daily at the noon hour—45 minutes being granted for this purpose by the company every day except Tuesday, when 1 hour is allowed. The club also meets twice a month, in the evening, in a pleasant room in the factory set aside and furnished for its use by the company. It is a literary and social organization, pursuing special lines of study, upon which original papers are prepared, read, and discussed by the members, and its room is provided with most of the current magazines and with games of different kinds, which furnish diversion to the members when not engaged in the more serious work of the club. Their daily noon meetings are informal, except the ones held on Tuesdays, at which regular programmes are carried out, as at their semimonthly evening meetings. They are connected with a larger organization, known as the Young Women's League, whose meetings they attend twice a month. One of the firm members states that the effect of this organization upon the employees has been elevating, morally and intellectually; that they work better than formerly, and have more self-respect, and that, considered from a purely financial aspect, "it pays in dollars and cents."

ELIAS WEINREICH, DAYTON, OHIO.

The cigar factory of the above-named manufacturer is located in a large, well-ventilated building, constructed with special reference to the health and comfort of the employees, of whom about 140 are

females. The women are organized into a literary club, which meets for an hour and a half each week and is presided over by a representative of the Women's League. Various lines of study are pursued by this club, original papers are prepared and read by the members, according to prearranged programmes, and interesting and improving exercises of an educational nature are engaged in. Great interest is taken in the proceedings of the club by the female employees, all of whom participate in its meetings. Mr. Weinreich also furnishes a commodious and well-equipped dining room for the use of his employees at the noon hour. He is convinced that the profits of his business have been greatly increased, and says that the morale of his employees has been vastly improved by the features that prevail in his establishment for their benefit.

JOHN WANAMAKER, NEW YORK, N. Y.

There are three organizations among the employees of this establishment, the Looking Forward Club, the Noonday Club, and the Employees' Relief Association.

The first named, the Looking Forward Club, was organized in February, 1898, all female employees being eligible to membership, and had, in August, 1899, about 300 members, whose literary and social advancement is the club's object. It has commodious rooms near the establishment, fully furnished and equipped, and handsomely decorated by the firm, connected with which is a lunch room and kitchen for the exclusive use of club members. The club has a full organization, with the usual officers and committees, and meets such minor expenses as are not provided for by the firm by the collection of dues from members at the rate of 50 cents for each 6 months. The executive board of the club plans its work. Its meetings are held informally, daily at the noon hour, and regularly, once a month at 8 p. m., for business, literary, and social purposes. Other meetings, social or otherwise, are held from time to time, or may be arranged by the executive board, while classes in calisthenics and in history are held weekly. The club has five standing committees, known as the library, comfort, reception, social, and gymnasium committees, and each of these looks after the special features indicated by its name. The comfort committee's special province is to provide for the care and comfort of such employees as may be disabled by sickness or otherwise, whether club members or not. This club has brought about a remarkable spirit of friendliness and cooperation among the employees, and the general results accomplished by it have been so highly beneficial as to cause the firm to take an active interest in it and to encourage it in every possible way.

The Noonday Club was organized May 1, 1899, with 85 members, all males, consisting of department heads, buyers, and aisle managers.

The club is regularly organized and has rooms near the establishment, provided with necessary furnishings, materials for correspondence, daily New York papers, most of the leading magazines, and a lunch room. The rooms are open daily from 11 to 2 to members, who spend their lunch hours there. The rooms and their equipment are supplied by the firm, without expense to the club, the minor expenses of which are met by the payment of small monthly dues by the members. The plan of the club contemplates the holding at night of regular monthly meetings of a social or literary nature. This organization can not fail of being beneficial to its membership, which includes all employees who are eligible.

The Relief Association is a beneficial insurance organization with a membership of about 3,500, including every employee of the establishment. Its funds, which accrue in the ordinary way by the regular payment of dues by members, are used in paying sick and death benefits, and for the care and nursing of sick members, and, occasionally, for the payment of their traveling expenses when necessary for them to seek change of climate. Its finances are in a prosperous condition, and many thousands of dollars are collected and disbursed by it annually.

THE ACME SUCKER ROD COMPANY, TOLEDO, OHIO.

A good idea of what has been accomplished by this company toward the improvement of industrial conditions and the elimination of social barriers between employer and employed is given in a letter addressed by the president of the company, Mr. S. M. Jones, under date of June 27, 1899, to an agent of the Department of Labor. After narrating the beginning of the business of the company and describing the deplorable conditions of the workmen as they then existed, Mr. Jones says:

From the first I began to break down the senseless, silly social distinction that exists between employer and employed. I believe in equality as a fundamental proposition, and have always believed in it, and have always believed that I had no right to ask a man to work under conditions under which I myself would not be satisfied to work. Moreover, I had no inclination to ask any man to do for me what I would be unwilling to do for others. As I looked about me and saw the hard conditions of stupefying toil that characterize the lives of many of my fellow-men, and reflected how impossible it is for thousands of them under their conditions to be decent citizens, I felt keenly the shame and outrage of the social situation. Not having studied very closely the ethics of the Golden Rule, I one day resolved to put it up in the shop as the rule governing the place, foolishly thinking that I could carry out the Golden Rule while making profit from the toil of my fellow-men. Though I know now that this can not be done, the Golden Rule still hangs on the wall. It has, at least, been an ideal for which employer and employed might strive. If there has been

failure to live up to it, it has been on the part of the employers rather than on the part of the men who do the work.

We have continued our policy of breaking down the wicked idea of social distinction from the beginning; first by little parties, excursions down the bay, and so on; then by an occasional word of counsel, a Washington birthday letter, a Christmas letter; the opening of a small park and playground for the children adjoining the factory, and of a comfortable hall upstairs over the shop, park and hall each bearing the name of "Golden Rule;" arranging for meetings and music in the park on Sundays in the summer, and in the hall during the winter time. Progressive people in the neighborhood are conducting an ethical Sunday school in the hall every Sunday afternoon. The meetings in both places are religious in the best sense of the word, though broadly catholic. The subjects discussed and studied are the Golden Rule, brotherhood, patriotism, the wage question, and various phases of the social problem. * * * In addition to this the men have organized among themselves a club for the study of social problems. * * * The men also have a German social club, and a singing club has been organized.

About a year ago the company proposed to the men to institute an insurance fund to provide for injuries, sickness, etc., the company proposing that the men deposit 1 per cent of their weekly wages to the credit of the insurance fund and a like amount would be deposited by the company. The fund is under the charge and direction of the men, who have formed the society with rules for the governing thereof. Another step looking toward the recognition of larger social obligations has been the extension of a week's vacation with pay to every workman, the men being requested to arrange for the time of vacation with the manager, so as to interfere as little as possible with the work.

For nearly three years we have been running the shorter workday, not exactly an 8-hour day, but we work a 50-hour week, 9 hours for 5 days and 5 hours on Saturday. We lay no claim to having done anything from a charitable motive; the whole aim has been to strive toward an ideal of justice. There is very little of what is known as the "boss" idea about the place—none at all, indeed, except the necessary direction—and with the disappearance of the "boss" idea I believe the alleged necessity for bosses will go also. Simple justice requires me to say that every step that has been made looking toward just dealing has met with a responsive echo on the part of the men, and shorter hours and better treatment have resulted in better work, better workmen, better men, better citizens.

The Golden Rule Park, with its delightful old trees and its children's playground, adjoining the shop where the men can look out of the windows directly upon it, has had an elevating, moralizing effect, and, indeed, the whole moral tone of the neighborhood has been improved by its healthful atmosphere.

No one has a right to hope that a man will improve very rapidly who feels that he is simply used as a cog in a wheel—as a mere instrument from which his employer wants to squeeze profit. * * * There is no room to question but that fair-play treatment pays, from the sordid, economic point of view. I have not cared to inquire, however, whether it paid or not; that fact does not concern me as much as the question, Is it right? But those who are looking at the mere material side of the question will be pleased to know that it pays in sordid dollars and cents.

In addition to the other features in operation by this company for the benefit of its employees, it makes a distribution annually of a portion of its profits among them, each workman receiving a sum proportional to the amount of his earnings during the year.

THE PROCTER & GAMBLE COMPANY, IVORYDALE, OHIO.

The methods adopted by this large manufacturing company in dealing with its employees are described in a letter from the general manager, under date of June 22, 1899, from which the following extracts are given:

Profit sharing.—Under our system of profit sharing all employees who have been in the employ of the company for not less than three months are entitled to receive a profit-sharing dividend upon their wages equal to that declared upon the common stock; that is to say, an employee who received wages of \$500 a year receives a profit-sharing dividend equal in amount to that received by the holder of \$500 worth, par value, of common stock of the company. The profit-sharing dividend is paid at the same time the dividends are paid upon the common stock. The company reserves the right to refuse the profit-sharing dividend to any employee for cause, but the amount of the dividend to which he would have been entitled is distributed among the other employees. Since the inauguration of the company in 1890 the profit-sharing dividends have been at the rate of 12 per cent, with the exception of the last two years, when they have been at the rate of 20 per cent per annum. We consider the system a success, and believe that the extra interest and care shown by the employees have more than earned the amount of money that has been paid them in dividends.

Pension fund.—The company has established a pension system whereby the company pays one-half of the amount necessary and the employees contribute the other half. The employees' contribution is taken each year from the profit-sharing dividend. All employees who have been in the employ of the company for ten years and then become disabled from any cause are entitled to receive a pension of 75 per cent of their average wages during this last year of employment, which amount, however, shall not be less than \$6 per week. In order to make the drain on the pension fund as light as possible, the company as far as possible gives employment to pensioners at such light work as they are capable of doing and pays them what such work is worth. The amount necessary to bring their income up to what they would be entitled to under the pension system is taken from the pension fund.

Accident insurance.—Any employee of the company who is injured from any cause while in the employ of the company receives his regular wages until such time as he is able to return to work. No charge is made against the employees for this accident insurance.

Medical attendance.—The company furnishes free medical service to all its employees living within 3 miles of the factories.

In addition to the above, the company has assisted the employees in buying the stock of the company. The company will advance the money to any employee who desires to buy the common stock of the company and charge him 4 per cent interest upon the unpaid balance. The employee pays them the money so advanced in installments of

not less than \$5. Any dividends paid upon the stock accrue to the employee. In addition to this, some of the officers of the company have given the employees making such investments in the stock of the company a written guarantee against loss upon such investments.

We employ in our factories about 700 people, of whom about 300 are boys and girls. Among the 400 men in the employ of the company there is now held, at the present market value, over \$220,000 worth of the common stock of the company. We would especially call attention to the benefits, both to the employee and to the corporation, of such a scheme. If a plan which affords proper protection to employees against suffering any financial loss can be devised and encouragements held out to them to invest their savings in the stock of the corporation for which they are working, we believe a great deal of the labor trouble can be avoided. Of course the first consideration must be the absolute protection of the laborer in such investment.

Any person visiting this company's establishment can not fail of being impressed with the fact that their liberal policy in dealing with their employees and the thoughtful consideration given to their welfare have resulted in great moral and social benefits to the employed, as well as in great financial prosperity.

**N. O. NELSON MANUFACTURING COMPANY, ST. LOUIS, MO., AND
MOUND CITY AND LECLAIRE, ILL.**

This establishment, which employs between 400 and 500 people, adopted a profit-sharing scheme in 1886, in pursuance of which, without making any changes in management or wages, interest was allowed on the company's capital at 6 per cent and the remaining profits were divided between capital and labor, after setting aside one-tenth thereof for a reserve fund, one-tenth for a provident fund, and one-twentieth for an educational fund. Interest was regarded as the proper wages of capital; the reserve fund was intended to meet the losses of bad years and to equalize dividends when profits were small; the provident fund was for the caring for the families of deceased employees, or of such as should become disabled through sickness or accident; and the educational fund was designed to establish a free library for employees.

The dividends arising under this plan were paid in cash or in the company's stock, according to the wish of the individual employees, who invested about three-fourths thereof in stock, until 1890, when the rule was adopted of issuing stock for all dividends to employees, which is redeemed at par whenever the holder for any cause leaves the service of the company. In 1894 the rule was adopted of permitting only such employees to receive profit-sharing dividends as saved 10 per cent of their wages when working full time and receiving full pay and invested it in the company's stock, the purpose of the rule being "to offer a substantial inducement for men when in good health and having steady employment to save something for the future, and also to make the sharing in the business profits dependent on each one doing something toward it in a direct and personal way."

In 1892 the proportion of the profits given to labor was increased, a 2 per cent dividend being paid on wages to each 1 per cent on capital, and the original plan of setting aside fixed percentages of profits for beneficial and educational purposes was superseded by the payment of whatever amounts should be necessary therefor and charging them against the profits.

About one-half of the company's works are located at LeClaire, near Edwardsville, Ill., which was located in 1890 upon a tract of 125 acres of land, to which several additions have since been made. A beautiful village has been built by the company, and about one-half of the area has been laid out in streets. Houses have been built and sold to such employees as want them. The price charged for land, including improvements, is \$2 per front foot for interior and \$2.50 per front foot for corner lots, and 6 per cent interest from 1892. The company builds the houses on plans mutually agreed upon, and charges for them the cost of raw material and labor plus the average profit made by the manufacturing business. The company has its own planing mills, woodworking force, and lumber yard, and it is probable that the net cost of a house is no more than the cost of raw material and labor would be when bought in the ordinary retail way. The payments per month range from \$10 to \$20, depending on the price of the house and the wages received by the buyer. The attempt is made to enable everyone to secure a house, and to make the payments such as he can afford. When, for any reason, a man wishes to remove and dispose of his property, the company voluntarily takes it back at the purchase price, refunds the money paid on it, and charges rent for the time occupied. There is no intention to provide houses for rent, except a few for temporary occupancy. These houses are rented at from \$6 for a 3-room house to \$12 for one of 6 rooms with bath, including water and electric light. Water is free in all the houses and for yard purposes. The owners of houses are charged for electric lights 25 cents per month for each lamp. The lots are 100 feet front by from 120 to 180 feet in depth. The deeds are without restriction, save that houses must be built at least 30 feet back from the sidewalk, to allow for ample front yards; and they are to be used for residence, benevolent, and educational purposes only. Employees are free to live where they please. A large portion of them are residents of the adjoining town of Edwardsville, and many of them own their homes.

The company has erected and equipped a clubhouse upon its grounds, with kitchen, dining room, steam heat, electric light, sleeping rooms, library, and reading rooms, which had heretofore been occupied by a club of unmarried men, known as the Cooperative Boarding Club. This club had been discontinued for various reasons, and the building is now used by the employees for meetings and other social purposes.

There is a billiard room and bowling alley, of which the employees have free use. The company maintains a large steam-heated greenhouse, from which residents are supplied with plants and flowers free of charge, together with the services of a landscape gardener, to enable them to make the grounds surrounding their homes attractive.

The employees have a literary society which provides, on alternate Tuesday nights during the winter, a course of lectures by prominent lecturers. These cover a wide range of subjects, including illustrated lectures on history and travel, and are usually given in the clubhouse, though at times it has been necessary to utilize one of the factory buildings, owing to the large attendance. The other Tuesday nights are taken up by musical, literary, and social exercises by the members of the society. There is also among the employees a well-trained band, consisting of 30 members, 18 regular and 12 auxiliary, which performs two nights each week during the summer on the spacious lawn on the company's grounds, which is provided with comfortable seats and with various accessories for the amusement of the children, such as swings, teeter boards, etc.

The Leclaire School and Library Association, consisting of the home-owning residents of Leclaire, was formed in 1894, and has control of the free library and the kindergarten school established by the company and of the educational affairs of the town. The library has upward of 1,000 volumes, to which additions are constantly being made. The school fund is endowed with \$10,000 of the stock of the company, and the deed of endowment and articles of incorporation of the association provide that the school system shall begin with a kindergarten, to be followed by a regular school system and manual training. At the age of 12, boys are given light work for one hour per day in the factories or on the company's farm, and the hours of labor per day are increased each year until the age of 18 is reached, when a pupil is supposed to graduate from school and to become employed at full time and wages in the works of the company without being compelled to seek employment elsewhere.

The Provident Fund, which is used in caring for disabled employees or for the families of those deceased, is controlled by provident committees of five members each, one for St. Louis and one for Leclaire, elected by the employees. These committees, as occasion demands, draw on the treasurer of the company for whatever amounts they find to be necessary, and the sums thus paid out constitute a part of the regular running expenses of the establishment, the profits being reduced and the dividends payable to both labor and capital lessened by the amounts thus expended. These provident committees act under well-defined rules and regulations which have been adopted by the employees at large.

Concerning the profit-sharing system and other features prevailing

in this establishment, it is said that in the opinion of the management waste of time and material has been reduced and better attention has been secured; that none of the "free" things at Leclair are held out as charities or gifts—nor are they such in any proper sense—but they are public facilities similar to schools, libraries, parks, and lights in any well-ordered city, and are paid for out of the profits earned by the joint capital and labor of the company, and that the company and its employees attempt to combine in a practical way a backbone of productive business with an elastic system of social flesh and muscle.

That the plans upon which the business of this company has been conducted have resulted satisfactorily both to employer and employed is well evidenced by the fact that they have continued in full and successful force and operation for more than a decade, that the business is prosperous and profitable, and that the employees are contented and happy, labor troubles and disturbances being unknown among them.

PEACEDALE MANUFACTURING COMPANY, PEACEDALE, R. I.

This establishment, one of the oldest manufacturing institutions in the United States, has long been known for the liberality of its dealings with its employees and its constant efforts for their betterment and happiness. It conducts the only productive business of the village of Peacedale, and the entire population of 1,600 or more persons is directly or indirectly dependent upon it. An account of the various organizations of employees and other beneficial features fostered and encouraged by the company has been furnished by its treasurer, and is given below:

The village organizations of Peacedale, which tend to make it a pleasant and valuable place in which to live, are not generally in the hands of the manufacturing company as such, although they have been in most cases started, and to a great extent carried along, by the owners of the property. The fact that the stockholders of the corporation have always lived here and been a part of the village life itself has been an especially useful item in the growth of the place. Most of the organizations named below are thus village rather than company matters, but at the same time the company, its owners, and employees practically make up the village.

The Hazard Memorial harbors most of these organizations. The building was erected in 1891 to the memory of Rowland Gibson Hazard. It contains a library that now holds about 7,000 volumes, a hall seating 600 people, several class rooms, a gymnasium, etc. The building, of stone and wood, is an important part of the village architecture, and cost, perhaps, \$40,000 or \$50,000.

1. The library is carried on in the interests of the whole town, and is managed by a board of directors that represent the different villages. It is used principally by Peacedale and Wakefield, and in the summer is drawn upon by Narragansett Pier and other near-by summer resorts. It is entirely free. It has not only the library proper,

but a reading room which is open during the season until 8 o'clock every night. The library has funds that have been given to it from time to time, and is supported by them and contributions from various interested people. The town has within the past year for the first time made an appropriation to buy books.

2. The Choral Society was organized some ten years ago, and has grown to be one of the leading features of Peacedale. A conductor comes down from Providence once a week during the season, and there is a chorus of 75 to 100 voices who make up the membership of the society. They give three concerts each year and have done some very good work. * * * This Choral Society has not only helped the village in itself, by giving concerts and affording the singers of the place an opportunity, but it has an indirect value in developing the local musical talent, as shown in an excellent church choir, and, especially, in another feature of Peacedale, which we call the "Sunday Musics." The Choral Society is formally organized, has a president, treasurer, board of directors, etc., and the members pay \$3 each per annum. There is an admission fee to the concerts, but the whole sum realized from these sources is not sufficient to carry on the work and the deficiency is made up by the owners of the mill property.

3. A few years ago the Sunday Musics were begun by Miss Hazard and her sister, who simply went into the hall on a Sunday afternoon and played and sang for fifteen or twenty minutes, while a few people from the outside straggled in. From that it has grown to be an informal concert each Sunday afternoon for the season from November until Easter. The various Sundays during the time are allotted to musical people in the village and town, and each one gets up a programme that will take from half an hour to an hour. The music is not wholly sacred, but it is attractive to the people of the village and town, who come in large numbers, and the hall very frequently contains from two hundred and fifty to five or six hundred people on a pleasant Sunday afternoon. The musicians are almost entirely local, though once in a while we have some first-class performer from the outside. There is no organization, and no charge of any sort connected with this work.

4. The Sewing Society has two rooms upstairs in the building, and meets every Saturday afternoon during the fall, winter, and spring. This is also without formal organization, and is carried on by the wife of the president of the company and a number of other ladies in the village. The girls are divided into classes and taught the practical art of sewing. Twice a year they are given a little spread and a frolic. They number about 100 pupils.

5. The Boys' Room was started some five years ago, and is a very simple affair. The membership is confined to boys under 16, nominally, although there are a few over that age who came in several years ago, and have continued to come. The boys are the village boys, mostly the sons of mill operatives. They come at half past 7 o'clock Friday evenings and are kept until 9 o'clock. They are divided into two parts, and sent down, one part at a time, to the gymnasium, where they are instructed and led in gymnastics by some competent person. The other part are kept in the rooms above, where there are games and reading matter, and a few are drawn into classes, carried on in the same building, in arithmetic, sometimes in stenography, or in any study in which sufficient interest is shown to gather a class. The idea

of the club, if club it may be called, is that the association of the boys with somewhat more refined and orderly methods will help them as time goes on. There are some 8 or 10 people who come regularly to help carry on the work. There is no charge of any sort in connection with this organization. At the end of the year the boys are treated to ice cream and cake and a general good time.

6. There are also in the building some special classes in manual training. The past year the work has been in carpentry, and has been exceedingly good. The class numbers from 8 to 10 boys, who are mostly sons of mill operatives. They are furnished with tools by the trustees of the hall, and charged 5 cents a lesson to cover the cost of material. The instructor is a village carpenter of unusual skill, who gives his time.

7. In the basement of the Memorial Hall there is a gymnasium, several bathrooms, and a smoking room. These are appropriated by the athletic association, which consists of some 30 to 40 young men who each pays \$2.50 per annum for the privilege of using the apparatus, the bathrooms, etc. The work is under the care of the superintendent of the Memorial Building, who collects the dues and maintains order. The money is applied toward the expense of maintaining the gymnasium, and the deficiencies are made up by the trustees of the hall.

8. The village supports a Literary Society, which meets every two weeks during the season, extending from October to May. It is regularly organized, with a president, secretary, treasurer, etc. It was begun a good many years ago. The entertainments are not wholly of a literary character, but are largely contributed by local talent and consist of lectures, concerts, dramatic performances, etc. We frequently hire people from outside, and one concert of the Choral Society is included as a regular number in the Literary Society's course. One night a year is given up to the issuing of a number of the South County Magazine, which is a rather unique production of this society. Though called a magazine, it is in manuscript, and is simply read and illustrated by living pictures, drawings, etc. The membership consists of all those who buy season tickets, and the charges amount to about 10 cents per night.

9. In the Memorial Hall several local circles of the King's Daughters society, which are branches of the regular organization of that name, hold their regular meetings.

The hall in the Memorial Building is for the general use of the people of the village, but is not let to any traveling show or organization, and for no entertainments that are not considered by the trustees to be for the better interests of the village. The rental to such people as can hire it is nominal. It is used for fairs, concerts that are gotten up for special town purposes, etc.

There is also maintained in the village, in another building, a reading room which is regularly organized, and is patronized by the young men entirely. This club is called the Peacedale Reading Association, and has been in successful operation for a long period of years. It is supported by a yearly charge from the members, which goes toward buying newspapers and periodicals, which are placed upon the tables, and the deficit is made up by the president of the Peacedale Manufacturing Company. A room and lighting are furnished them free of charge, and they use this for meetings at all times, smoking, playing games, and such like harmless entertainment. The dues are about \$2 a year.

The only other general work in this line that the Peacedale Company undertakes is to cultivate a spirit of fairness and just dealing with its employees, and to make the tenements and the village generally as attractive, pleasant, and healthful as possible.

The owners of the property feel that the efforts which they have made, extending now over a long series of years, have aided in bringing about a cordial feeling among all parties who work for the company, and in raising the general morale of the village. Certainly Peacedale has a body of very efficient and steady help, and the changes among the employees are few. A number of families have been here for several generations, and the company has never experienced any serious labor difficulties.

THE SOLVAY PROCESS COMPANY, SYRACUSE, N. Y.

The treasurer of this company has furnished a statement of the work carried on by it during the past thirteen years in the way of improving the condition and efficiency of employees, from which the following account has been prepared.

The management, in considering various plans looking to the social and moral uplifting of its employees, as well as the increasing of their abilities as workmen, early came to the conclusion that the most effective way of reaching them and improving their condition would be not so much through efforts directed to the men themselves as through the work which could be done through their children; and the company's experience goes far to show that along this line of effort much may be accomplished.

In the autumn of 1886 a small sewing school was established in an unoccupied room in the office building. The attendance at first was small, consisting of not more than 25 or 30 girls, ranging in age from 10 to 14 years, almost entirely the children of workmen; though in this, as in all similar work carried on by the company, no strict line was drawn between the children of employees and those of others living in the vicinity. This class was carried on, with increasing numbers, soon outgrowing the capacity of its original quarters, and in 1890 the company built and furnished a commodious hall and dwelling house, arranged with special reference to the carrying on of the sewing school and other work of similar character. The class has been continued from year to year and now numbers about 250. The pupils are divided into classes, each under the care of a competent teacher. The course of sewing is graded, practically the same system being used which has been worked out by the Pratt Institute of Brooklyn. In connection with the sewing school there are also classes in household work and in cooking, the latter being attended by some of the older girls, who also have an embroidery class in which they meet once a week and give their time and labor in the preparation of fine

JOHN B. STETSON COMPANY, PHILADELPHIA, PA.

The following statement, relative to the improved industrial conditions prevailing in the above-named establishment, was furnished by the treasurer of the company under date of August 2, 1899:

The factory has been organized, and conducted for many years, on the broadest principles of humanity. In the effort to reach this we have approached each subject with a care that we can only describe as having been born of experience.

The apprenticeship system is in full force in this factory. Our apprentices are required to serve four years of actual service before becoming journeymen. During this time we feel that they are more or less under our control and supervision, and that we are in a large degree responsible for the habits they form while here. Every precaution is taken, therefore, from the time that an apprentice enters the factory to surround him with all possible chances of improvement, mentally and morally. In order that he may be brought into touch with the moral influences, a Sunday school room, fully fitted out with parlor organ, grand organ, and piano, is attached to the factory. Class rooms within this room make it possible to have here a Sunday school which frequently reaches as high as 1,400 members. The Christian Endeavor and Choral societies connected with the school are both flourishing organizations. The library in connection with this school is kept open during the week, so that it is possible for the employees at any time to obtain, if they desire, the best literature of the day. The books are furnished without charge, a librarian being in attendance whose business it is to keep the records.

It has been the custom of the managers, ever since the inauguration of the apprenticeship system, to give to each apprentice upon his graduation the amount of \$1 per week during his entire stay as an apprentice in this establishment, in addition to his earnings. This sum of money is, however, in no way connected with his wages, but is a gift by the management to those who deserve it. The pay of the apprentices is by the piece, the amount of wages they receive being dependent entirely upon their application to their duties. A peculiar feature of this factory is that a Friday noonday meeting is held weekly, where the apprentices are assembled for a half hour, and the time is devoted to music, singing, and to such talks as are calculated to be beneficial to them, morally and spiritually.

One of the most important organizations connected with the place is the John B. Stetson Building Association, which is conducted entirely by the operatives, and which has been in operation for many years with uniform success. Many of the operatives, through the medium of this association, have become the owners of homes which are now entirely clear and paid for, solely by connection with this association.

In addition to this we have the Stetson Savings Fund, which is intended to gather in the smaller amounts that could not be conveniently handled by the building association. There is, however, a limitation on the deposits in the savings fund to such portions of the weekly earnings of each person as the management believe it is possible for the depositors to permit to remain for their future use. The company receives these deposits and allows interest upon them, at the present time, at the rate of 5 per cent per annum. In order to prevent the withdrawal of deposits without full and proper consideration, it has

been deemed wise, in case of their desire to withdraw before the end of 6 months, that depositors may be permitted to do so by losing the accumulated interest thereon.

The beneficial fund is also an institution which deserves some notice, and is supported by a contribution from each worker of 25 cents per month, unless it be an apprentice under 18 years of age, in which case the amount is 15 cents per month. This secures a fund which is applicable to those who may be sick and not able to attend to business, at the rate of \$5 per week for 5 weeks in each year to those over 18 years of age, or \$3 per week if under 18 years of age; or, in case of death, \$100 is allotted for funeral expenses to those over 18 years of age and \$75 to those under 18 years of age. This fund has proved sufficient to meet all the purposes of the object for which it was created.

The company in the management of its business has endeavored to furnish as much light and air as it is possible to obtain for the operatives, and no little trouble and expense has been incurred by the effort to secure such surroundings. Cleanliness is one of the laws of the place. Every department throughout the factory, no matter what may be the work carried on therein, is required to be constantly clean and tidy.

During the last 2 years it has been found that an investment of 5 per cent additional on the workmen's wages, in various departments of the factory, has proved beneficial to the workmen and to the factory itself, and the possibilities are that this method of rewarding will further extend itself in the future. A system of rewards for merit is prevalent throughout the factory. Workmen in all classes are liable to be benefited at Christmas by being the recipients of rewards for extra duty performed, or for good work, or for good conduct, throughout the preceding year. These favors are largely paid in gold, several thousand dollars being distributed each Christmas upon this account, the prizes ranging from \$100 downward, nothing less than \$2.50 being given. Individual accounts are kept with every workman in the place, so that by actual comparison exact justice may be done to every individual. In making up the rewards of these accounts absolute justice, without partiality, is shown.

The Union Mission Hospital connected with the factory is fully equipped with all modern appliances for the most effective work. Many thousand cases have been treated therein during the past 10 years, its services being entirely under the control of the John B. Stetson Company.

For many years the gymnasium connected with the factory has been in constant use. It is fully equipped with everything necessary for the modern ideal athletic improvements.

The officials of the company assert most positively that their efforts as outlined in the foregoing statement have not only resulted in the moral, social, and physical upbuilding of the employees, but also in great improvement in the quality and quantity of their work, and in substantial increase in the company's business and profits.

STRAWBRIDGE & CLOTHIER, PHILADELPHIA, PA.

The proprietors of this large mercantile establishment, with more than 1,000 employees, having a full realization of the fact that their progress and the prosperity of their business depend largely on the

good health, contentment, and interest taken in the firm's affairs by the employed, have adopted certain methods tending to accomplish the desired result. Among these may be mentioned the arrangements made for the comfort and welfare of female employees, for whose pleasure and convenience a commodious, well-lighted, and tastefully furnished dining room has been fitted up, in which they are furnished with coffee, tea, and milk at lunch hours free of charge. This room is supplied with cushions and easy-chairs and an extensive library, and women attendants are employed whose duty it is to minister to the comfort of the girls in every way possible. A complete stock of medicines is kept on hand for use in emergencies, and a lady physician is in attendance three days in a week. Another feature, which likewise is prevalent in many progressive business houses in various cities throughout the country, is the granting to all employees of an annual vacation, with full pay, of either one or two weeks, according to length of service. It is generally conceded that the renewed zest and energy with which employees resume their duties upon returning to work more than compensate for the amounts paid them during their absence.

There are two organizations among the employees, known as the Savings Fund and the Relief Association, the objects of which, as indicated by their names, are, respectively, to stimulate a desire to save money and to enable members to lay aside a small fixed sum each week, and the relief of any member who may be detained from business on account of sickness, disability, or accident, or the payment of a fixed sum to his family in case of his death. The affairs of both organizations are highly prosperous. The funds of the Savings Fund, which at the close of the last fiscal year amounted to more than \$70,000, are cared for and invested by the firm and earn liberal interest. The Relief Association has upward of 1,000 members, and its income, derived from small assessments levied on the membership when demanded by the condition of its treasury, is supplemented by liberal donations of money by the firm. Since its organization, in 1880, the association has collected and disbursed about \$69,000.

In this, as in all similarly conducted establishments, business has been improved and profits increased by just and liberal treatment of employees and constant care for their well-being.

CINCINNATI MILLING AND MACHINE COMPANY, CINCINNATI, OHIO.

The managers of this establishment are thoroughly imbued with the idea that it is necessary, in order to insure the lowest cost of production in manufacturing industries, to foster a kindly feeling on the part of the employed for the employer. A manufacturer may be ever so willing to install in his plant the latest improved machinery, as well as to adopt special fixtures and tools, but can not hope to gain the full

measure of benefit to be derived therefrom unless these improved machines and devices are received in the proper spirit and worked to their best advantage by the workmen who must use them. If this proper spirit on the part of the workmen can be cultivated, so that each individual will utilize every moment and every machine or fixture to its best advantage, the cost of work will be reduced lower than by any other method and far less expense will be necessary in the way of superintendence and inspection.

In order to build up and foster a spirit of friendliness on the part of its employees and to cultivate a feeling of good-fellowship, the company for a number of years has given annual outings to all its employees and their families, in which expense has not been spared to render them occasions of thorough enjoyment, and on each Christmas every employee receives an appropriate present from the company. On May 1, 1899, a profit-sharing scheme was put into operation, by virtue of which the employees receive a quarterly dividend, based on the wages received by them and upon the increased output of the shops brought about through their efforts. The cost books of the concern show the gain in production per man, upon which the wage dividend is based.

The sum of \$500 per year is set aside, \$250 of which is paid each 6 months in the way of prizes for suggestions made by employees for improvements of any kind in the conduct of the shops or business of the company. The maker of any suggestion which is used, for which no prize is awarded, is paid for it such a price as it is deemed to be worth. At the time the foregoing information was furnished (during the summer of 1899) the company intended to shortly provide a dining room and kitchen for the use of employees, as well as club and bath-rooms, and to encourage the formation of social and literary organizations among them.

The managers of the company say they know, by comparing the cost of work in their shops with that of other shops in similar lines of production, that they are being directly benefited by the good feeling on the part of their employees and the interest taken by them in all efforts looking to the improvement and increase of output and the lessening of the cost of production, brought about by liberal treatment and a recognition of the principle that money expended for the betterment of the lives of employees is money profitably invested.

PELZER MANUFACTURING COMPANY, PELZER, S. C.

This company, which operates the largest cotton-manufacturing plant in the South, employing 2,800 operatives, conducts its business and looks after the interests of its employees in such manner as to conserve the highest and best development of both. The town of Pelzer, in which the factories are located, has a population of about 6,000, all of whom are directly or indirectly dependent upon the mills. Every dwelling house and building, of which there are about 1,000, belongs

to the company. The town is not incorporated, but is held as private property, and is governed entirely by the rules and regulations of the mill corporation.

The dwelling houses, which contain an average of 4 rooms each and which are rented to the mill hands at 50 cents per room per month, are tasteful and convenient in construction, and each one is provided with about 15,000 feet of ground which is utilized by the tenants for gardening purposes. The tenants are also supplied by the company with water and with meadow land for the pasturing of several hundred cows, free of charge. All sanitary and street work is carried on at the company's expense, and every effort is made to render the village pleasant and attractive.

There are several mercantile establishments in the town with which the company has no connection other than the ownership of the buildings occupied by them. The largest of these is a corporation with a paid-in capital of \$25,000, the shares, of \$25 each, being nearly all owned by the mill operatives, who conduct the business through a manager elected by themselves. This establishment is very popular with the employees and its affairs have been prosperous enough to enable the payment of substantial dividends to its shareholders.

In addition to 5 churches, the town has 2 well-equipped schools, which were attended by between seven and eight hundred children in 1899, maintained entirely by the company for 10 months in the year without any expense whatever to the residents of the place. As the public schools of South Carolina do not run over 4 months per year, the comparative educational advantages offered at Pelzer are very great.

The company also maintains a "Lyceum," a handsome building in which is housed a circulating library of over 4,000 volumes of approved standard literature, to which additions are constantly being made. The books of the library are kept in an apartment designated the "ladies' reading room," which is also provided with newspapers, scientific and textile periodicals, and all of the popular magazines and pictorial papers. Another room is fitted out with tables and facilities for carrying on social games, and a third room of the building is known as the "gentlemen's reading and smoking room." The Lyceum is kept open every evening from 6.30 to 10.30 and the use of it is absolutely free to the residents of the town.

A regular course of free lectures on history and travel, accompanied by stereopticon illustrations, is provided by the company, which also takes great interest in the amusements of the inhabitants of their village. They have uniformed and partly support several baseball clubs, maintain a race track for bicycle races, and on public holidays furnish amusement for the people, consisting of out-of-door sports, races of various kinds, etc. The employees have a regularly organized bicycle club, known as the Smyth Wheel Club, which gives frequent exhibitions of fancy and fast riding, at which the members contend for prizes

offered by the company. There is also a military company, a part of the State militia, known as the Smyth Rifles, and a brass band fully equipped with fine instruments and numbering 36 members. These organizations are nurtured and helped in all necessary ways by the company.

The officers of the company conduct a savings bank, in which the employees are encouraged to deposit their savings, upon which they receive interest at the rate of 1 per cent per quarter. The deposits in this bank on July 1, 1899, amounted to nearly \$90,000.

The officers of the company believe very strongly that the interest they take in the health and welfare of their employees, and in providing recreations and amusements, schools, and other facilities for them, pays as handsome a dividend on the money thus expended as any investment they could make. At the same time they feel that they are doing what lies in their power in fulfilling the duty incumbent upon them to benefit the condition of their employees and to add to their pleasure and happiness. One result, perhaps, of this is the fact that labor difficulties are unknown in this establishment, and that there has never been the slightest disagreement or unpleasantness between the company and its employees since its organization in 1881.

MISCELLANEOUS.

Many other examples could be given of manufacturing and mercantile establishments throughout the country in the management of which practical and successful application is made of the principle that employees render the best service, that labor difficulties are avoided, and that business can be most profitably conducted by recognition on the part of the employers of the fact that the employed are something more than mere machinery; that they are human beings, capable of suffering and enjoying; that they have social and intellectual ambitions and aspirations that should be encouraged and fostered, and that their efficiency is to be measured by the standard of their advancement along these lines, and their moral and physical conditions. It would be unjust, however, to assume that the efforts of the employers of labor in these directions are based wholly upon the desire for increased profits. Such desire is undoubtedly ever present, and its fulfillment invariably results; but coupled therewith is the knowledge and appreciation of the duty that is owing to those whose lives and destinies are bound up with and largely dependent upon the industrial establishment to which their labor is sold, and that their happiness as individuals and advancement as useful citizens are objects more worthy of accomplishment than any other.

To give further detailed accounts of such establishments, many of which have been visited in securing the information contained in this article, would consist merely in repetitions of what has already been

set forth. Mention may, however, be made of a few prominent concerns which are carrying these ideas into operation, in order that such readers as desire to pursue this subject further may have at least a partial basis for their investigations.

The J. C. Ayer Company, of Lowell, Mass., assembles its employees at an annual banquet every winter and gives them an outing every summer; rewards them with prizes for valuable suggestions; aids them in the regular publication of a literary periodical; gives pensions to elderly employees, and provides the female help with free luncheons and with free conveyances to and from the factory in bad weather.

Fels & Co., of Philadelphia, Pa., assists its employees in the successful carrying on of beneficial insurance and savings associations; encourages their organization into social and educational clubs; provides them with comfortable lunch, lounging, and recreation rooms, and makes special efforts looking to the reduction of the hours of labor below and the increase of wages above those ordinarily prevailing.

The Niagara Development Company, of Niagara Falls, N. Y., has built for such of its employees as desire to avail themselves of its advantages a beautiful village, known as Echoto, in which the houses are of the most approved architectural patterns, and provided with electric lights and all modern conveniences. It has also erected a spacious assembly hall for the use of its employees in holding meetings and social gatherings.

The Sherwin Williams Company, of Cleveland, Ohio, aids its employees in the management of a successful beneficial insurance society; gives them an annual outing, an annual banquet, and appropriate presents on Thanksgiving day; gives special and substantial rewards for long and faithful service, and provides a free library, and also well-equipped dining rooms and bathrooms.

The Kilbourne & Jacobs Manufacturing Company, of Columbus, Ohio, makes a Thanksgiving distribution of gifts to employees annually, and gives them an outing each summer; renders them such financial aid as may be necessary in case of hardship or need, and gives to such employees as may be sick, during the continuance of their illness, half pay and free medical attendance.

The Pope Manufacturing Company, of Hartford, Conn., aids its employees in the management of a prosperous beneficial association; furnishes free medical attention to such as may need it; provides a free library and commodious rooms, fitted with tables and chairs, which the men use for such purposes as they desire; conducts a modern café in which the employees are provided with food nominally at, but really below, cost (the annual deficiency in conducting it amounting to about \$1,500), and furnishes various other facilities and conveniences for their use and enjoyment.

Other well-known establishments in which the features herein described have been adopted to a greater or less extent are: S. E.

Packard & Son, Campello, Mass.; Henry Disston & Son, Philadelphia, Pa.; Gorham Manufacturing Company, Providence, R. I.; Brown & Sharpe Manufacturing Company, Providence, R. I.; Elgin National Watch Company, Elgin, Ill.; The A. B. Chase Company, Norwalk, Ohio; The Ferris Brothers Company, Newark, N. J.; J. H. Williams & Co., Brooklyn, N. Y.; Syracuse Chilled Plow Company, Syracuse, N. Y.; The Warner Brothers Company, Bridgeport, Conn.; H. J. Heinz Company, Pittsburg, Pa.; The Jeffrey Manufacturing Company, Columbus, Ohio; R. Hoe & Co., New York; Schaum & Uhlinger, Philadelphia, Pa.; Yale & Towne Manufacturing Company, Stamford, Conn., and The Werner Company, Akron, Ohio. There are doubtless many other establishments besides the ones enumerated which have practically applied these principles and plans of proved economic and sociologic value. Certain it is that manufacturers in all sections of the country who have not yet tested their efficiency, but who are convinced of the benefits to be derived from them, are constantly inquiring as to their methods of application and operation, with a view of adopting such of them as may be deemed feasible.

This paper would be incomplete without reference to the club organization and life of railway employees which has been brought about through the cooperation of railway corporations, officials, and employees, and the Young Men's Christian Association. So much information has heretofore been given concerning this movement, in magazines and newspapers and in the regular publications of the Y. M. C. A., as to render only a brief account of it necessary at this time. These organizations, of which there were 127 in the United States and 10 in Canada in 1899, are scattered throughout the two countries, from Idaho to Nova Scotia and as far south as Mississippi. Their total membership in the year mentioned approximated 35,000, and their total ownership of real estate, used exclusively for association purposes, amounted to about a half million dollars, while the value of the buildings erected or set aside for this use by railroad corporations and officials amounted to over a half million. These figures give an idea of the magnitude of this movement, which is further exemplified by the following facts taken from the Association Year Book for 1899.

In 118 railroad branches of the association, over \$313,000 was paid out for current expenses during the year; 120 branches reported a total average daily attendance of 15,202 members; 118 had reading rooms, provided with current periodical literature; 105 had bathrooms, in which 369,820 baths were taken; 97 reported 12,718 visits made to sick and injured members; 56 had rest rooms and sleeping accommodations, which were used 248,143 times; 22 had lunch rooms, used 745,727 times; 18 had temporary hospital facilities, which were used 820 times; 36 were provided with gymnasiums, and 43 had other means of physical training and recreation; 95 had libraries, containing

a total of over 70,000 volumes; in 43, 119 educational classes were conducted with over 1,200 students; 16 reported the existence of literary societies among the membership, with a total average attendance at their meetings of 354. In addition to the foregoing, lecture courses were conducted by many of the clubs, and, in all, religious exercises were carried on to a greater or less extent.

The first of these organizations was effected in 1872, and its beneficial results were so apparent that the great railroad corporations of the country have since then encouraged their formation in the most substantial way, not only by gifts of real estate or of money for building purposes, but by regular annual contributions of such sums as have been necessary, in addition to dues collected from the members, for the payment of current expenses. About 60 per cent of the expenses at each point is borne by the railroad company or companies, all of whose employees are eligible to membership. These expenses aggregate about \$150,000 annually. The remainder is paid by the railroad men. The financial aid thus given is generally regarded by railroad officials as a legitimate item of operating expenses, and directly in the line of economical administration.

A prominent railroad official, in recommending a second appropriation of several thousand dollars by the company for the purposes of this organization, said: "If you vote this money for this purpose it means more to the company than the same amount would if invested in steel rails." Another prominent railroad official has remarked: "I have been familiar with this department of association activity from its very beginning, and am more and more convinced that it is for the best interests of both owners and employees that the railroad corporations should encourage and contribute to this work." The report of the Interstate Commerce Commission for 1892 says: "Another agreeable showing is that of the Young Men's Christian Association in connection with the railway service, a work commending itself, even upon the most practical grounds of pecuniary self-interest."

The homes of these organizations, many of which are imposing and costly structures, fully equipped and furnished with all available means for promoting the comfort and the physical, moral, and intellectual well-being of their members, not only supply railway employees with opportunities for self-improvement and the cultivation of cordial, social relations, but also afford desirable and convenient places of meeting for railway officials and employees for the exchange of views in regard to matters of joint concern. Their establishment and maintenance have resulted in a better understanding between the employed and the employer, a clearer conception of the economic fact that the interests of both capital and labor are best promoted by hearty joint effort, and that cooperation is more profitable in every way than selfish antagonism.

PRESENT STATUS OF EMPLOYERS' LIABILITY IN THE UNITED STATES.

BY STEPHEN D. FESSENDEN, A. B., LL. M.

The liability of employers for damages for injuries of their employees incurred while in the performance of duty is regulated in the United States (1) by the common law, as announced in the decisions of the Federal and State courts, and (2) by the statutes upon the subject passed by the different legislative bodies, and for the most part adding to and extending the rights of the employees as limited by the common law.

Upon most of the points bearing upon this subject there has been a substantial agreement in the decisions of the courts of the various States of the Union, and a careful examination of the reports seems to warrant the use of the following as a fairly correct summarization of the decisions of the courts upon the common law, and an accurate statement of the principles of the same.

COMMON LAW.

LIABILITY FOR INJURIES.

An employer is ordinarily liable in damages to his employee who may sustain an injury through the employer's negligence. Such negligence may consist in the doing of something by the employer, which, in the exercise of ordinary care and prudence, he ought not to have done, or in the omission of any duty or precaution which a prudent, careful man would or ought to have taken.

An employer is not liable to the employee of his contractor for the negligence of said contractor, when the employer himself has retained and exercised no control over the means or methods by which the work is to be accomplished.

DUTIES OF THE EMPLOYER.

An employer assumes the duty toward his employee of exercising reasonable care and diligence to provide the employee with a reasonably safe place at which to work; with reasonably safe machinery, tools, and implements to work with; with reasonably safe materials to work upon, and with suitable and competent fellow-servants to work with him; and, in case of a dangerous or complicated business, to make such reasonable rules for its conduct as may be proper to protect the servants employed therein. If he fails to use ordinary care in the discharge of these duties, his ignorance of the dangerous nature of the

working place, of defects in the tools or appliances furnished, or of the incompetency of the fellow-servants, will not excuse him from liability for an injury caused thereby.

Although the employer's duty of seeing that competent and fit persons are in charge of any particular work is as positive as are the other duties owed by an employer to his employees, yet it is fully discharged when reasonable precautions have been taken to fulfill said duty. No one of the employer's duties carries with it an absolute guaranty. Each is satisfied with reasonable effort and precaution.

ASSUMPTION OF RISK BY THE EMPLOYEE.

When the employer has properly discharged these duties then the employee assumes all the risks and hazards incident to or attendant upon the exercise of the particular employment or the performance of the particular work. Where an employment is accompanied with risks of which those who enter it have, or are presumed to have, notice, they can not, if they are injured by exposure to such risks, recover compensation for the injuries from their employer.

By contracting to perform hazardous duties the employee assumes such risks as are incident to their discharge, and he assumes not only the risks existing at the beginning of his employment but also such as arise during its course, if he had or was bound to have knowledge thereof. He does not, however, assume the risks of dangers arising from unsafe or defective methods, machinery, or other instrumentalities unless he has, or may be presumed to have, knowledge or notice thereof; and the burden of proving that an injured employee had such knowledge or notice of the defect or obstruction causing the injury is upon the employer.

The employee assumes all risks of latent defects in appliances or machinery, unless the employer was negligent in not discovering the same; but the experience or lack of experience of the employee is to be considered in determining whether or not he is chargeable with knowledge of such defects as are not obvious, and of the danger arising therefrom.

Another risk assumed by employees is that of the employer's method of conducting his business. If the employee enters upon the service with knowledge of the risk attending the method, he can not hold the employer responsible for injuries arising from the use of such method, though a safer one might have been adopted; but in order to relieve the employer from liability the method must amount to a custom or mode of carrying on the business, and not consist merely of an instance or any number of instances of culpable negligence on the part of the employer. All risks and hazards resulting from the possible negligence or carelessness of fellow-servants or coemployees are also assumed by the employee.

VICE PRINCIPALS.

Whenever the employer delegates to any officer, servant, agent, or employee, high or low, the performance of any of the positive duties devolving upon him, then such officer, servant, agent, or employee stands in the place of the employer, and becomes a substitute for the employer, a vice principal, and the employer is liable for his acts and his negligence to the same extent as though the employer himself had performed the acts or was guilty of the negligence.

But, where the employer himself has performed his duty, he is not liable to any one of his employees for the acts or negligence of any mere fellow-servant or coemployee of such employee, who does not sustain this representative relation to the employer.

FELLOW-SERVANTS.

The great disagreement in the decisions of the State courts has been on the test as to who are and who are not fellow-servants. Some of them, the supreme court of the State of Ohio being the leading one, have held that where the injured employee is subordinate to the employee whose negligence caused the injury, and under his control or direction in the performance of the work, they are not fellow-servants and the one having control and direction is a vice principal for whose negligence their common employer is liable.

The courts of the majority of the States hold, however, that the mere difference in grade of employment, or in authority, with respect to each other, does not remove them from the class of fellow-servants as regards the liability of the employer for injuries to the one caused by the negligence of the other.

It is also held by the courts of some of the States that, as industrial enterprises have grown, and, because of the division of labor and the magnitude of operations, have been divided into separate and distinct departments, a laborer in one department is not a fellow-servant with a laborer in another and separate department of the same establishment.

"In the absence of State legislation," this question, as to who are and who are not fellow-servants, "is not a question of local law upon which the Federal courts are bound to follow the decisions of the State courts, but is one of general law, upon which the Federal courts may exercise their independent judgment uncontrolled by local decisions." Under the above-quoted principle, as announced by the United States Supreme Court, the decisions of that court have practically settled this point for the whole country. It has repeatedly decided that while the heads of separate and distinct departments of a diversified business may, under certain circumstances, be considered, with respect to employees under them, vice principals or representatives of the employer, yet each separate piece of work is not to be considered a

separate department nor, necessarily, the one having control of it a vice principal. That the rightful test to determine whether the negligent act complained of was that of a vice principal or of a fellow-servant, turns rather on the character of the act than on the relation of the employees to each other; that if the act is one done in the discharge of some positive duty of the employer, then the negligence in the act is the negligence of the employer for which he is responsible, but if it be not one in the discharge of such positive duty, then it is not the negligence of a vice principal for which the employer is responsible, but that of a coemployee or fellow-servant.

CONTRIBUTORY NEGLIGENCE OF THE EMPLOYEE.

It is a general rule that when an employee suffers an injury through the negligence of his employer, he is not entitled to recover damages for such injury if his own negligence contributed thereto. But his right to recover damages for an injury is not affected by his having contributed thereto unless he was at fault in so contributing, and he may recover, notwithstanding his contributory negligence, if the employer, after becoming aware of the danger, failed to exercise ordinary care or willfully inflicted the damage.

CONTRACTS RELIEVING THE EMPLOYER OF LIABILITY.

Under the common law an employer can not relieve himself from responsibility to an employee for an injury resulting from his (the employer's) negligence by any contract entered into for that purpose before the happening of the injury.

STATUTE LAW.

In addition to the preceding, which is but a brief summarization of the chief principles of the common law bearing upon this subject as they have been laid down in the decisions of the courts, many of the States have legislated upon the subject, the statutes passed varying from a mere statement or definition of the common law to a radical change of the same.

ENACTMENT OF COMMON LAW IN FORM OF STATUTE.

In the first place we will consider such legislation as merely enacts the common law principles in the form of a statute, or which at the most can be construed as going but slightly beyond them. There are many laws upon the statute books of the States which were passed for the purpose of protecting the life and health of employees, and which, in the furtherance of such purpose, impose certain duties upon the employers. Of this nature are the laws regulating the conduct of the business of mining, providing for the prevention of accidents in the mines, ventilation of the same, etc.; the factory laws, providing for

guards on machinery, fire escapes on the mills, fixed hours of labor, sanitary appliances, etc., and the laws requiring the use of safety apparatus on railroad tracks, engines, and cars, and making it the duty of the person, company, or corporation owning or operating such mine, factory, or railroad to see that such provisions are carried out.

NEGLIGENCE OF THE EMPLOYER.

It is a well-settled principle of the common law that, where such duties are imposed by legislative enactment or municipal ordinance, it is negligence on the part of the employer to fail to comply with the requirements of the laws imposing such duties, and the employer is liable to his employees for all injuries arising from such negligence unless it can be clearly shown that they assumed the risk. Much of the legislation passed has been in line with this principle, some, perhaps, slightly exceeding the common law in imputing negligence to the employer. The States of Arkansas, California, Colorado, Illinois, Indiana, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, Wisconsin, and Wyoming, the District of Columbia, the Territory of New Mexico, and the United States all have laws in line with the above. That of Arkansas, now forming a section of the Digest of 1894, the original act having been approved April 4, 1893, is as follows:

SECTION 5058. For any injury to persons or property occasioned by willful violation of this act [regulating coal mines], or willful failure to comply with any of its provisions, a right of action shall accrue to the party injured for any direct damages sustained thereby.

The law of California appears in section 8 of an act approved March 27, 1874, and section 3 of an act approved March 13, 1872, now to be found on page 633 of Vol. IV of the Codes and Statutes of 1885, and in section 3 of chapter 74 of the acts of 1893, approved March 8, 1893. These sections follow in order as mentioned above.

SECTION 8. For any injury to person or property occasioned by any violation of this act [regulating coal mines], or any willful failure to comply with its provisions, a right of action shall accrue to the party injured for any direct damages he or she may have sustained thereby, before any court of competent jurisdiction.

SECTION 3. When any corporation, association, owner, or owners of any quartz mine in this State shall fail to provide for the proper egress as herein contemplated, and where any accident shall occur, or any miner working therein shall be hurt or injured, and from such injury might have escaped if the second mode of egress had existed, such corporation, association, owner, or owners of the mine where the injuries shall have occurred shall be liable to the person injured in all damages that may accrue by reason thereof; and an action at law in a court of competent jurisdiction may be maintained against the owner or owners of such mine, which owners shall be jointly or severally liable for such

damages. And where death shall ensue from injuries received from any negligence on the part of the owners thereof, by reason of their failure to comply with any of the provisions of this act, the heirs or relatives surviving the deceased may commence an action for the recovery of such damages.

SECTION 3. Any person or company failing to carry out any of the provisions of this act [providing that mine operators, etc., shall make certain specified rules as to signals] shall be responsible for all damages arising to or incurred by any person working in said mine during the time of such failure.

The State of Colorado has her law in this connection in section 3192 of the Annotated Statutes of 1891, originally part of an act approved February 24, 1883, and in section 2 of chapter 69, of the acts of 1897, approved April 1, 1897. These statutes read as follows:

SECTION 3192. For any injury to person or property occasioned by any violation of this act [regulating coal mines], or any willful failure to comply with its provisions by any owner or lessee or operator of any coal mine or opening, a right of action against the party at fault shall accrue to the party injured for the direct damages sustained thereby, and in any case of loss of life by reason of such violation or failure, a right of action against the owners and operators of such coal mine or colliery shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of damages for the injury they shall have sustained.

SECTION 2. In all trials in all courts in this State, to recover for personal injury, and in all cases of personal injury to employees, or other persons, occasioned by, or in any manner directly or indirectly resulting from being caught between any of the aforesaid rails, testimony relative to compliance with the requirements of this act [providing for the blocking of frogs, and switch, split, and guard rails on railroad tracks] shall be admitted. And where a failure is shown on the part of any such corporation, company or person to have safely and securely blocked such rails in accordance with the provisions of this act, such failure to have complied with any of the provisions of this act shall be prima facie evidence of the negligence of any such corporation, company or other person so failing to comply with any of the provisions of this act where any such employee, or other person, may be caught between such rails not blocked in accordance with the provisions of this act.

In chapter 45 of the acts of 1886-87, approved January 26, 1887, Congress passed the following law for the District of Columbia:

SECTION 3 (as amended by chapter 178, acts of 1894-95). *Provided also*, That the lessee, owner or trustee, as the case may be, of any such building [factory or mill], who shall fail to erect fire escapes as in said act provided, shall be liable to an action for damages in case of death or personal injury resulting from fire in buildings not provided with fire escapes as required by said act, and that such action may be maintained by any person or persons now authorized by law to sue, as in other cases of injury or death by wrongful act: *Provided further*, That as to any building which the Commissioners shall determine to be fireproof, they may in their discretion require the erection of fire escapes.

Illinois has embodied its law in sections 14, 24, and 32 of chapter 93 of the Annotated Statutes of 1896, said sections being originally parts of acts approved May 28, 1879, June 19, 1891, and June 21, 1895, respectively. They read as follows:

SECTION 14. For any injury to person or property occasioned by any willful violations of this act [regulating coal mines] or willful failure to comply with any of its provisions, a right of action shall accrue to the party injured for any direct damages sustained thereby; and in case of loss of life by reason of such willful violation or willful failure, as aforesaid, a right of action shall accrue to the widow of the person so killed, his lineal heirs or adopted children, or to any other person or persons, who were before such loss of life dependent for support on the person or persons so killed, for a like recovery of damages for the injuries sustained by reason of such loss of life or lives; not to exceed the sum of five thousand dollars.

SEC. 24. After January 1, 1892, no owner, operator or agent of any mine to which this act [providing for State examination, etc., of mine managers] applies shall employ any mine manager who does not hold either the certificate of competency or service herein provided for, and if any accident shall occur in any mine in which a mine manager shall be employed who has no certificate of competency or service as required by this act, by which any miner shall be killed or injured, he or his heirs shall have right of action against such operator, owner or agent, and shall recover the full value of the damages sustained:
* * *

SEC. 32. After July 1, 1896, no owner, operator or agent of any coal mine in this State where hoisting engineers are required to hoist coal or men out of the mine, or where fire or explosive gas generates, where the employment of a fire boss is necessary to examine the mine as to whether or not it is safe for men to enter and pursue their calling without danger from explosive gas, shall not employ any person whatever as hoisting engineer or fire boss unless they have a certificate of competency or service herein provided for. And if any accident shall occur at or in any mine where a hoisting engineer or fire boss is employed who has no certificate of competency or service as required by this act [providing for State examination of fire bosses and hoisting engineers], by which any person shall be killed or injured, he, or his heirs, shall have right of action against such operator, owner or agent, and shall recover the full value of damages sustained.

In a case, decided in 1893, in which a coal company was sued for damages for injuries of an employee resulting, as alleged, from the inexperience and incompetency of an engineer and also from the failure of the company to provide "safe means" and "machinery" for the hoisting of employees from the mine, the appellate court of Illinois for the third district commented upon section 14 above, as shown by the following taken from the syllabus of the case:

Section 14 of this chapter declares the liability for injuries when the mine owner and operator "willfully" fails to comply with the provisions of the chapter. A willful violation of the statute is a violation of the statute knowingly and willfully. To constitute willful negli-

gence the act done or omitted must have been intended. When recovery is sought for injuries resulting from mere inadvertence or negligence, pure and simple, the defendant may often defeat liability upon the ground that the plaintiff knew of the dangers to which he might be exposed, and voluntarily chose to take the chances of encountering them; or upon the other ground that he was injured by the negligence of a fellow-servant; but neither of these defenses is available when the injury is the result of the willful act, or the willful failure of the defendant to act. If the master in employing an engineer, had knowledge at the time of his employment, or at any time before an injury occurs that he was incompetent or inexperienced, and has willfully kept him in his employment after obtaining such knowledge, he will be liable.

In another case, decided in 1888, the supreme court of the State decided that under this section (14, above) a coal-mining company is liable for a personal injury to a person in its employ, while descending into the mine, resulting from the employment of an incompetent engineer to take charge of the engine used in lowering persons into and hoisting them out of the mine.

In the Annotated Statutes of Indiana of 1894 the law of that State is to be found. The original act was approved June 3, 1891, and it is in the following language:

SECTION 7473. For any injury to person or persons or property occasioned by any violation of this act [regulating coal mines], or any willful failure to comply with any of its provisions, a right of action against the owner, operator, agent or lessee shall accrue to the party injured for the direct injury sustained thereby, and in case of loss of life by reason of such violation, a right of action shall accrue to widow, children, or adopted children, or to the parents or parent, or to any other person or persons who were before such loss of life dependent for support on the person or persons so killed, for like recovery for damages for the injury sustained by reason of such loss of life or lives.

In an action brought under the above section the appellate court of Indiana held that the doctrine of the assumption of risk does not apply to a breach of a statutory duty imposed on the master, and the continuing of a servant in the employ of a master with knowledge of such a breach of such duty will not prevent recovery for an injury suffered by reason of such breach.

The law of Iowa is contained in section 2083 of the Code of 1897, originally part of an act approved April 5, 1890. It reads, in part, as follows:

SECTION 2083. * * * Any railway employee who may be injured by the running of such engine, train or car contrary to the provisions of said sections [providing for the placing of safety couplers and power brakes on engines and cars] shall not be considered as waiving his right to recover damage by continuing in the employ of the corporation, company or person operating such engine, train or cars.

The Kansas statute was approved February 28, 1883, and is now contained in the following paragraph of the General Statutes of 1889:

PARAGRAPH 3856. For any injury to person or property occasioned by any violation of this act [regulating coal mines], or any willful failure to comply with its provisions by any owner, lessee or operator of any coal mine or opening, a right of action against the party at fault shall accrue to the party injured for the direct damage sustained thereby; and in any case of loss of life by reason of such violation or willful failure, a right of action against the party at fault shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of damages for the injury they shall have sustained.

Section 7 of chapter 362 of the acts of 1895, approved May 9, 1895, has the only Massachusetts statute which is properly shown here. It appears below:

SECTION 7. Any employee of such corporation who may be injured by any locomotive, car or train in use contrary to the provision of this act [providing for the placing of safety couplers and power brakes on engines and cars] shall not be deemed thereby to have assumed the risk thereby occasioned, although continuing in the employment of such corporation after the unlawful use of such locomotive, car or train has been brought to his knowledge.

All the legislation of Michigan which comes under this head appears in the following section of the Compiled Laws of 1897. The original act containing this legislation was approved June 22, 1887:

SECTION 5495. If any man or men are allowed to continue work in any place condemned by the mine inspector, except to do the work required to be done to insure safety before said place has received the necessary changes to secure the safety (ordinary risks of mining excepted) of the laborers engaged therein, the person, persons or corporation operating said mine shall be liable for all accidents causing injuries or death to employees working in or about such place until the order referred to in the preceding section shall have been complied with or revoked.

Minnesota has laid down the common-law principle in sections 2242 and 2243 of the General Statutes of 1894, the original act having been approved March 7, 1885, and in section 2683 thereof, approved March 7, 1887. Said sections read as follows:

SECTION 2242. On all lines of railroad operated in this State the time of labor of the locomotive engineers and firemen employed in running or operating the locomotive engines on or over such roads shall not at any time exceed eighteen hours during one day: *Provided, however,* That nothing in this section shall be construed as allowing any locomotive engineer or fireman to desert his locomotive in case of accident or other unavoidable delay.

SEC. 2243. Any officer, director, superintendent, master mechanic, foreman, agent, or employee who compels any locomotive engineer or fireman to labor, in running or operating any locomotive engine on or over such roads for more than eighteen hours during one day, except

as provided in section one [2242] of this act, such person so offending shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than twenty-five or more than one hundred dollars: *And provided, further,* That all railroad corporations operating lines of road in this State, shall be liable for all injuries to its engineers or firemen resulting from their being obliged to labor for a longer period in any one day than that specified in section one [2242] of this act, and that nothing in this section shall be construed as allowing any locomotive engineer or fireman to desert his locomotive in case of accident or unwarrantable delay.

SEC. 2683. All railroad companies owning or operating railroads, or portions of railroads, in this State, shall, in addition to the penalties prescribed in this act [providing for the blocking of frogs, switches, and guard rails on railroad tracks], be liable for any damage resulting from the failure to comply with the provisions thereof, such damage to be recovered by the persons injured, or his or her legal representatives.

In the following section of the Revised Statutes of 1889 the law of the State of Missouri is to be found. The law contained in this section was approved March 30, 1887, and reads as follows:

SECTION 7074 (as amended by act approved April 23, 1891, page 182, acts of 1891). For any injury to persons or property occasioned by any violation of this article [providing regulations for coal mines] or failure to comply with any of its provisions, a right of action shall accrue to the party injured for any direct damages sustained thereby; and in case of loss of life by reason of such violation or failure as aforesaid, a right of action shall accrue to the widow of the person so killed, his lineal heirs or adopted children, or to any person or persons who were, before such loss of life, dependent for support on the person or persons so killed, for a like recovery of damages sustained by reason of such loss of life or lives: *Provided,* That all suits brought under this article shall be commenced within one year after any cause of action shall have accrued under this article and not afterward; *And, provided further,* That any person entitled to sue under this section for loss of life or lives may recover any sum not exceeding ten thousand dollars.

In regard to this section the supreme court of the State has held that mere knowledge by the plaintiff of the failure of the defendant to have the mine provided with the protections required by the law will not defeat an action for the recovery of damages occasioned by such failure.

The law of Nebraska, approved April 9, 1891, and now to be found in a section of the Compiled Statutes of 1895, is in the following language:

SECTION 1799. * * * And any railroad employee who may be injured by the engine or train or cars contrary to the provisions of this law [providing for the placing of safety couplers and power brakes on engines and cars] shall not be considered as waiving his rights to recover damages by continuing in the employ of such corporation, company or person running such engine, or train of cars contrary to this law.

New Jersey has the following law, approved March 22, 1888, and now contained in section 78, page 1491 of the General Statutes of 1895:

SECTION 78. * * * and any person or corporation failing to comply with the provisions of this act [providing for the placing of fire escapes on factories, etc.] shall be liable in an action for damages in case of death or personal injuries sustained because of the absence or disrepair of such fire escape, or in case of fire breaking out in any building upon which there shall be no such efficient fire escape; and such action may be maintained by any person now authorized by law to sue, as in other cases of similar injuries.

In an act approved March 1, 1882, New Mexico passed a law of this nature. It is now contained in a section of the Compiled Laws of 1897 and reads as follows:

SECTION 2346. For every injury to person or property occasioned by any violation of this act [regulating mines], or any willful failure to comply with its provisions, a right of action shall accrue to the party injured for any direct damages he or she may have sustained thereby before any court of competent jurisdiction.

A law of this character is contained in section 6 of chapter 251 of the acts of North Carolina of 1897, approved March 9, 1897. It reads as follows:

SECTION 6. * * * For any injury to person or property, occasioned by any willful or intentional violation of this act [regulating coal mines], or any willful failure to comply with its provisions by any owner, agent or manager of the mine, a right of action shall accrue to the party injured for any direct damage he may have sustained thereby; and, in any case of loss of life by reason of such willful neglect or failure aforesaid, a right of action shall accrue to the personal representative of the deceased, as in other actions for wrongful death for like recovery of damages for the injury sustained.

Section 301 of the Revised Statutes of Ohio, seventh edition, contains legislation of this class, passed April 11, 1888, and reading as follows:

SECTION 301. * * * For any injury to persons or property, occasioned by any violation of this act [regulating coal mines], or any willful failure to comply with its provisions by any owner, agent or manager of any mine, a right of action shall accrue to the party injured, for any direct damage he may have sustained thereby; and, in any case of loss of life, by reason of such willful neglect or failure, aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of damages for the injury they shall have sustained.

The supreme court of Ohio, in 1895, held that one can not maintain an action against his employer for an injury following a violation of the act regulating coal mines, unless at the time he was injured he was in the exercise of due care; that one who voluntarily assumes a risk thereby waives the provisions of a statute made for his protection, and

that where a statute does not otherwise provide, the rule requiring the plaintiff in an action for negligence to be free from fault contributing to his injury is the same, whether the action is brought under a statute or at common law.

Section 2 of an act passed April 2, 1890, to be found on page 149, acts of Ohio of 1890, contains further legislation of this character. It reads as follows:

SECTION 2. It shall be unlawful for any such corporation to knowingly or negligently use or operate any car or locomotive that is defective, or any car or locomotive upon which the machinery or attachments thereto belonging are in any manner defective. If the employee of any such corporation shall receive any injury by reason of any defect in any car or locomotive, or the machinery or attachments thereto belonging, owned and operated, or being run and operated by such corporation, such corporation shall be deemed to have had knowledge of such defect before and at the time such injury is so sustained, and when the fact of such defect shall be made to appear in the trial of any action in the courts of this State, brought by such employee, or his legal representatives, against any railroad corporation for damages, on account of such injuries so received, the same shall be prima facie evidence of negligence on the part of such corporation.

In regard to this section the supreme court of Ohio has held that in the trial of a personal injury case against a railroad company for injuries caused by defects in its cars, locomotives, and machinery, or their attachments, the defects so causing injury are prima facie evidence of negligence on the part of such corporation; and by force of this section the burden is thrown upon the company to show, by proof, that it has used due diligence, and is not guilty of negligence; also the court held that this section applies to all railroad companies any part of whose line of railway extends into the State of Ohio, whether the injury complained of was received within or without the State.

In the Digest of Pennsylvania of 1895 sections 216, on page 1359, and 385, on page 1377, belong to this class of laws. These sections were originally part of an act approved April 18, 1877, and read as follows:

SECTION 216. For any injury to person or property occasioned by any violation of this act [regulating anthracite coal mines], or any failure to comply with its provisions by any owner, operator, superintendent, mine foreman or fire boss of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby; and in case of loss of life by reason of such neglect or failure aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of the damages for the injury they shall have sustained.

SEC. 385. For any injury to person or property occasioned by any violation of this act [regulating bituminous coal mines], or any failure

to comply with its provisions by any owner, operator or superintendent of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby, and in case of loss of life by reason of such neglect or failure aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost for like recovery of damages for the injury they shall have sustained.

In regard to section 216 above, the supreme court of Pennsylvania has declared that so much of the same as imposes liability on the mine owner for the failure of the foreman to comply with the requirements of those sections of the act which compels his employment and defines his duties is unconstitutional and void.

The law of the State of Rhode Island, belonging to this classification, was approved March 28, 1890, and is now to be found in the following section of chapter 108 of the General Laws of 1896:

SECTION 8. In all cases in which any person shall suffer injury or in which the death of any person shall ensue in consequence of the failure of the owner or owners of any building to provide the same with fire escapes or stairs and stairways, as required by the provisions of this chapter, or in consequence of the failure of said owner or owners to comply with the written notice and requirement of any inspector of buildings, when made in conformity to the provisions of this chapter, such owner or owners shall be jointly and severally liable, to any person so injured, in an action of trespass on the case for damages for such injury; and in case of death such owner or owners shall be jointly and severally liable in damages for the injury caused by the death of such person, to be recovered by action of trespass on the case, in the same manner and for the benefit of the same persons as is provided in sections fourteen and fifteen of chapter two hundred thirty-three; which action, when the owners are nonresidents, may be commenced by attachment. It shall be no defense to said action that the person injured, or whose death ensued as aforesaid, had knowledge that any such building was not provided with fire escapes or stairs and stairways as required by the provisions of this chapter, or that such person continued to work in or to occupy said building with said knowledge.

The State of Washington enacted a law of this character in an act approved February 28, 1890. The following section of Vol. I (General Statutes) of the Annotated Statutes and Codes of 1891 contains the same:

SECTION 141. Whenever the mining bureau or the State geologist shall receive a formal complaint in writing, signed by five or more persons, employees in a mine, setting forth that the mine in which they are employed is dangerous in any respect, the State geologist shall visit and examine such mine, and if, from such personal examination, he shall ascertain that the facilities for egress are insufficient, or that from want of timbering, scaling, or slacking of the ground in such mine so visited, or from other causes, or that the timber, ladders or ladderways, pentices, or plats, in any such mine are in a dangerous condition, it shall become his duty to notify the owners, lessor, or lessee thereof;

such notice to be in writing, and to be served by copy on any person or persons in the same manner as provided by law for the service of legal notices or process; said notice shall state in what particulars timbers, ladders, ladderways, pentices, or plats are dangerous, and shall require the necessary changes to be made without delay; and in case of any criminal or civil procedure at law against the party or parties so notified, on account of loss of life or bodily injuries sustained by any employee subsequent to such notice and in consequence of neglect to obey the State geologist's requirements, a certified copy of the notice served by the State geologist shall be *prima facie* evidence of the culpable negligence of the party or parties complained of.

Section 3 of chapter 22 of the acts of 1895, approved March 1, 1895, contains another law of Washington of the same character. It reads as follows:

SECTION 3. In all actions against any person or persons or corporation engaged in operating any shingle mill or shingle mills in the State of Washington, for injuries received from any knot saw used in such shingle mill or shingle mills, it shall be *prima facie* evidence of negligence on the part of the defendant to show that such knot saw causing the injury was not at the time of receiving the injury complained of properly protected by a metallic saw guard: *Provided*, That if any knot sawyer shall remove any such guard after the same has been placed in position, and while the same is removed receive injury, he shall not be entitled to receive damages for any such injuries.

Wisconsin's law, approved March 21, 1889, and being now a section of the Annotated Statutes of 1889 is in the following language:

SECTION 1809a. 1. Every railroad corporation operating any railroad, shall erect and maintain sufficient guards or blocks at the front and rear of every frog in every railroad track of any such corporation used and operated in this State.

2. If any railroad corporation, its officers, agents or servants, shall violate or fail to comply with any of the provisions of this act, or shall fail to sufficiently guard such frogs, such corporation for each and every such violation or failure shall forfeit not less than fifty nor more than five hundred dollars, one-half to the person prosecuting, and shall in addition be liable to the person injured for all damages sustained thereby, whether the person so injured shall be a servant or agent of such corporation or not, and notwithstanding that such violation or failure shall arise or occur through the negligence of any other agent or servant thereof.

It has been decided by the supreme court of Wisconsin that this statute does not take away the defense of contributory negligence.

Wyoming's enactments of common law are to be found in sections 2 and 4 of article 9 of its constitution, which went into effect July 10, 1890, and in section 15 of chapter 80 of the acts of 1890-91, approved January 10, 1891. They appear below:

SECTION 2. The legislature shall provide by law for the proper development, ventilation, drainage and operation of all mines in the State.

SEC. 4. For any injury to person or property caused by willful failure to comply with the provisions of this article, or laws passed in pursuance hereof, a right of action shall accrue to the party injured, for the damage sustained thereby, and in all cases in this State, whenever the death of a person shall be caused by wrongful act, neglect or default, such as would, if death had not ensued, have entitled the party injured to maintain an action to recover damages in respect thereof, the person who, or the corporation which would have been liable, if death had not ensued, shall be liable to an action for damages notwithstanding the death of the person injured, and the legislature shall provide by law at its first session for the manner in which the right of action in respect thereto shall be enforced.

SECTION 15. * * * No person shall act as fire boss unless granted a certificate of competency by the State inspector of coal mines. No owner, operator, contractor, lessee or agent shall employ any mining boss or fire boss who does not have the certificate of competency required. Said certificate shall be posted up in the office of the mine, and if any accident shall occur in any mine in which a mining boss or fire boss shall be employed who has no certificate of competency, as required by this chapter, by which any miner shall be killed or injured, he or his estate shall have a right of action against such operator, owner, lessee or agent, and shall recover the full damages sustained; in case of death, such action to be brought by the administrator of his estate, within three years from the date of accident, the proceeds recovered to be divided among the heirs of the deceased, according to law.

The Congress of the United States passed a law of this nature in section 8 of chapter 196 of the acts of 1892-93, approved March 2, 1893. It is as follows:

SECTION 8. Any employee of any such common carrier [railroad companies engaged in interstate commerce] who may be injured by any locomotive, car, or train in use contrary to the provision of this act [providing for the placing of safety couplers and power brakes on engines and cars] shall not be deemed thereby to have assumed the risk thereby occasioned, although continuing in the employment of such carrier after the unlawful use of such locomotive, car, or train had been brought to his knowledge.

No case, either in a Federal or State court, has been found which directly construes the above section, but in two cases arising under the act of which said section is a part, the supreme court of North Carolina has held that the failure of a railroad company to apply safety couplers to its cars as required by the act is negligence *per se*, and that in such a case there can be no contributory negligence on the part of an injured employee which will discharge the liability of his employer.

As will be seen a majority of these acts, beginning with those passed by the legislature of California in 1872 and 1874 and ending with one passed in North Carolina in 1897, give a right of action to the person injured, as against the employer whose failure to comply with the law caused the injury, for all direct damages suffered by him, a few of

them declaring in terms that such employer "shall be liable." This goes no further than the common law would have gone under the principle that the failure to perform the duties enjoined by law is negligence. But at common law no action can be maintained for a personal injury resulting in death, whether the death is caused by the negligence of an employer or anyone else, and on this point some of these statutes go beyond the common law, as they provide for maintaining an action for the death of the injured party—for example, those of Colorado, Illinois, Indiana, etc.

Other facts in regard to the above statutes may be noted, as follows:

Colorado makes the fact that the law providing for frogs, etc., on the railroad track was not complied with prima facie evidence of negligence on the part of the corporation, company, or person responsible for such violation of the law, and Washington has the same provision in regard to the failure of operators of shingle mills to protect knot saws by metallic saw guards. Minnesota holds the employer liable in damages for failure to block the frogs, etc., on the railroad track; Wisconsin does the same, even though the negligence to which such failure was due was that of an agent or servant of the employer. Iowa, Massachusetts, Nebraska, and the United States decree that where the employer has failed to conform to the provisions of the law as to placing safety couplers and power brakes upon engines, cars, etc., the employee who was injured shall not be considered as having assumed the risk and waived his right to damages by continuing in the service of the employer after he had so failed to comply with the law. The District of Columbia and New Jersey give a right of action for the injury or death of an employee resulting from the failure of the employer to place fire escapes on factories, etc., in accordance with the provisions of the law, and Minnesota makes the employer liable for damages for injuries caused to engineers or firemen on railroads resulting from making them work longer than 18 hours in any one day.

DUTIES OF THE EMPLOYER.

Five States have enacted laws which state the common law upon the subject of the duties the employer owes his employees. They are California (sections 1969 to 1971, inclusive, of the civil code, Codes and Statutes of 1885), Minnesota (chapter 173, acts of 1895), Montana (sections 2660 to 2662, inclusive, of the civil code, Codes and Statutes of 1895, Sanders's edition), North Dakota (sections 4095 to 4097, inclusive, of the civil code, Revised Codes of 1895), and South Dakota (sections 3752 to 3754, inclusive, of the civil code, Compiled Laws of 1887). The statutes of California, Montana, North Dakota, and South Dakota are practically identical, being based upon a similar provision contained in the general codes prepared by the late distinguished lawyer, David

Dudley Field, of New York. That of California, originally enacted March 27, 1872, will serve as a representation of them all, and reads as follows:

SECTION 1969. An employer must indemnify his employee, except as prescribed in the next section, for all that he necessarily expends or loses in direct consequence of the discharge of his duties as such, or of his obedience to the directions of the employer, even though unlawful, unless the employee, at the time of obeying such directions, believed them to be unlawful.

SEC. 1970. An employer is not bound to indemnify his employee for losses suffered by the latter in consequence of the ordinary risks of the business in which he is employed, nor in consequence of the negligence of another person employed by the same employer in the same general business, unless he has neglected to use ordinary care in the selection of the culpable employee.

SEC. 1971. An employer must in all cases indemnify his employee for losses caused by the former's want of ordinary care.

The remaining State, Minnesota, covers much the same ground in its statute approved April 23, 1895. Such statute is, however, couched in different language and goes somewhat further than the others, in that it defines the term "vice principal." It is as follows:

SECTION 1. Every master or employer in this State shall use reasonable care to provide the person or persons in his employ with reasonably safe, suitable and sufficient tools, implements and instrumentalities with which to do the master's work, and also use reasonable care to provide a reasonably safe and suitable place for his servants to perform the duties assigned to them by the master.

It shall also be the master's duty to use reasonable care to establish safe and suitable rules and regulations or methods for the performance of the work required of his servants, and to direct and supervise the performance of the work in a reasonably safe and prudent manner.

SEC. 2. Whenever a master or employer delegates to any one the performance of his duties which he, as master or employer owes to his servants, or any part or portion of such duties the person so delegated, while so acting for his master or employer shall be considered the vice principle [principal] and representative of the master.

The supreme court of California has said of section 1970, above, that the law of the State respecting the negligence of a fellow-servant, where there is no want of ordinary care upon the part of the employer, as set forth in said section, recognizes no distinction growing out of the grades of employment of the respective employees, nor does it give effect to the circumstance that the fellow-servant through whose negligence the injury was received was the superior of the injured employee in the general service in which they both were employed.

The supreme court of Minnesota has held that both under the common law and under the above act it is the duty of a master to use reasonable care to provide for the employee a safe place to work in and safe machinery and proper appliances for doing the work, and

that this duty is an absolute one, which can not be delegated so as to relieve the employer from liability; and that if the safe place or safe machinery, etc., which the master has furnished is made unsafe by the negligence of his servants, whom he has selected with due care, such negligence is that of a fellow-servant for which the employer is not liable.

The statute of Montana was enacted February 19, 1895, while those of North Dakota and South Dakota were originally a part of an act of the Territory of Dakota, from which Territory both States were formed, approved February 17, 1877. The supreme court of the Territory declared in 1882, in the case of *Herbert v. Northern Pacific Railroad Company*, that the above-mentioned statutes were but an enactment of the common law upon the subject of employer's liability and do not change the rule. Said decision is binding in the two States.

COEMPLOYEES OR FELLOW-SERVANTS.

In addition to the laws presented and discussed above, many statutes have been enacted by the legislatures of numerous States which change the common-law liability and relax the strictness of the common-law rule as to coemployees or fellow-servants.

AFFECTING RAILROADS ONLY.

Most of these laws, however, affect but one class of employees, those employed by railroad companies, and the first legislation in this country which changed the common-law rule, and which was also the first legislation of any kind upon the subject of this article, applied in the case of the employees of railroads only. This was a statute enacted by the State of Georgia in 1856, which is now to be found in the two following sections of the Code of Georgia of 1895:

SECTION 2297. Railroad companies are common carriers, and liable as such. As such companies necessarily have many employees who can not possibly control those who should exercise care and diligence in the running of trains, such companies shall be liable to such employees as to passengers for injuries arising from the want of such care and diligence.

SEC. 2323. If the person injured is himself an employee of the company, and the damage was caused by another employee, and without fault or negligence on the part of the person injured, his employment by the company shall be no bar to the recovery [of damages].

As was said, these sections change the common-law rule only as regards railroad employees, and the legislature of Georgia has gone no further than this since their enactment. The constitutionality of these sections has been affirmed by the supreme court of the State in numerous cases. Said court has also held that to recover damages under these sections the injured employee must himself have been free

from fault; in other words, that he must not have been guilty of negligence contributing to his injury, even though in performing the negligent act he was acting under orders of a superior; that the application of these sections is not confined alone to cases where the injuries complained of were connected with the "running of trains," and that the effect of the sections is to put the employees of railroads upon exactly the same plane, in respect to their right to recover damages for injuries that a nonemployee would be on under the common law.

By decisions rendered in 1888 and 1895 the United States circuit court for the northern district of Georgia decided that sections 2297 and 2323 above did not apply in the case of an injury to an employee of a receiver operating a railroad under direction of a court of equity. The supreme court of the State had previously made the same decision. In order to extend the benefits of these sections to the employees of all railroads operating in the State, the legislature, by act approved December 16, 1895, provided that the liability of all receivers and like officers operating railroads should be the same as that of railroad companies as fixed in these sections. Said act, being No. 224 of the acts of 1895, reads as follows:

SECTION 1. The liability of receivers, trustees, assignees, and other like officers operating railroads in this State, or partially in this State, for injuries and damages to persons in their employ, caused by the negligence of coemployees, shall be the same as the liability now fixed by the law governing the operation of railroad corporations in this State for like injuries and damages, and a lien is hereby created on the gross income of any such railroad while in the hands of any such receiver, trustee, assignee, or other person, in favor of such injured employees, superior to all other liens against defendant under the laws of this State.

SEC. 2. Suits may be brought against either of such officers in the same county, and service may be perfected by serving them or their agents in the same manner as if the suit had been brought against the corporation whose property or franchise is being operated by them, and all such suits may be brought without first having obtained leave to sue from any court.

The next law of this nature to be passed was enacted by the legislature of the State of Iowa in 1862, and is now contained in section 2071 of the Code of Iowa of 1897, which reads as follows:

SECTION 2071. Every corporation operating a railway shall be liable for all damages sustained by any person, including employees of such corporation, in consequence of the neglect of agents, or by any mismanagement of the engineers or other employees of the corporation, and in consequence of the willful wrongs, whether of commission or omission of such agents, engineers, or other employees, when such wrongs are in any manner connected with the use and operation of any railway, on or about which they shall be employed, and no contract which restricts such liability shall be legal or binding.

As will be seen, this law puts the employee of a railroad company

upon the same level in regard to his right to recover damages for injuries as are all other persons not employees. The supreme court of Iowa has affirmed the constitutionality of this act and has decided that it applies only in case of injuries due to accidents growing out of the use and operation of railroads, and is not intended to embrace all classes of railroad employees, but only to apply to those engaged directly in the business of operating the railway. In this respect its scope seems to be more limited than that of the Georgia statute above. Upon the question as to who may be considered as engaged in the operation of a railroad, the court has drawn the line quite strictly to those engaged in the actual movement and operation of trains and such work as is necessary to provide for the same.

It has also been decided that a receiver who is operating a railroad under the appointment and direction of a court of equity is included in the term "persons owning or operating railways" within the contemplation of this section. A recent amendment to this section is referred to on page 1208, below.

In the order of time of adopting a law of this class the State of Montana stands next, and its law was originally passed by the legislature of the Territory of Montana in 1873, having been approved May 7, 1873. In 1895, after the admission of Montana as a State of the Union, the same law was included in an edition of the codes and statutes adopted by act of the legislature approved February 19, 1895, as the law of the State. It forms a section of the civil code, and is as follows:

SECTION 905. In every case the liability of a [railroad] corporation to a servant or employee acting under the orders of his superior, shall be the same in cases of injury sustained by default or wrongful act of his superior, or to an employee not appointed or controlled by him, as if such servant or employee were a passenger.

In a decision rendered by the supreme court in November, 1895, it declared that the above statute established the principle that there is a difference in the grade of the employees in a common employment, and that it gave a right of action to a servant, injured through the negligence of a superior employee, against a master, when such injured servant was without fault or negligence on his part. Subsequently a rehearing of this case was had, and as a result thereof the court decided that this Territorial statute had been annulled by the provisions of the State constitution, for the reasons that it applied to domestic corporations only; that, therefore, it placed a greater burden upon domestic corporations than upon foreign ones operating in the State, and that being so, was necessarily in conflict with section 11 of article 15 of the constitution of the State, which prohibited the giving to any foreign corporation, or the exercise by the same, of any greater rights or privileges than those possessed by domestic corporations. In the sense as used above, the words "domestic" and "foreign" apply, the one to

corporations created by the State of Montana, the other to corporations created outside said State, whether within the limits of the United States or not. From the above it is clear that said section, while a law of the Territory of Montana, never really became a law of the State, and Montana is, in effect, at the present time, without legislation changing the common-law rule.

In this particular kind of legislation Kansas modifies the common law in paragraph 1251 of the General Statutes of 1889, the original act having been approved March 4, 1874. The paragraph is in the following language:

PARAGRAPH 1251. Every railroad company organized or doing business in this State shall be liable for all damages done to any employee of such company in consequence of any negligence of its agents, or by any mismanagement of its engineers or other employees to any person sustaining such damage.

The supreme court of Kansas has repeatedly held this act to be constitutional; it has decided that the statute affects only those persons engaged in the hazardous business of railroading; that it has changed the rule as to the employer's liability for the negligence of employees, and has made railroad companies liable to one employee for injuries caused by the negligence of a coemployee, but the act or conduct, knowledge or notice for which the company is responsible in any given case must be that of some employee having duty or authority in the premises; that the application of this statute is not limited to cases where the injuries were caused in the movement of trains, and that a receiver or other officer operating a railroad under authority of a court is liable to the same extent as are railroad companies under this law.

The court also held that contributory negligence of the injured employee will bar a recovery of damages under this statute as it does under the common law, and that the paragraph applies to every railroad organized in the State or doing business in the State, but that its provisions do not include firms, partnerships, or individuals having servants or employees engaged in work upon the road or trains of a railroad corporation.

Wisconsin next, by chapter 173, acts of 1875, enacted legislation of this class. The language of the act was as follows:

Every railroad corporation shall be liable for all damages sustained by any agent or servant thereof by reason of the negligence of any other agent or servant thereof, without contributory negligence on his part, when sustained within this State, or when such agent or servant is a resident of and his contract of employment was made in this State, and no contract, rule or regulation between any such corporation and any agent or servant shall impair or diminish such liability.

This act was repealed by chapter 232, acts of 1880, and from that time until 1889 the courts of the State were governed by the common-law rule.

A new law on this subject was enacted in chapter 438, acts of 1889, which was rather more limited in its application than the former law, as it embraced only those cases where the injury complained of was caused by the negligence of any employee having charge or control of "any stationary signal, target point, block or switch."

This act was in turn repealed by chapter 220, acts of 1893, the present law of the State upon this subject. Said act was approved April 17, 1893, and is expressed in the following words:

SECTION 1. Every railroad or railway company operating any railroad or railway, the line of which shall be in whole or in part within this State, shall be liable for all damages sustained within this State by any employee of such company, without contributory negligence on his part; first, when such injury is caused by any defect in any locomotive, engine, car, rail, track, machinery or appliance required by said company to be used by its employees in and about the business of such employment, when such defect could have been discovered by such company by reasonable and proper care, tests or inspection, and proof of such defect shall be presumptive evidence of knowledge thereof on the part of such company; second, or while any such employee is so engaged in operating, running, riding upon or switching, passenger or freight or other trains, engines or cars, and while engaged in the performance of his duty as such employee, and which such injury shall have been caused by the carelessness or negligence of any other employee, officer or agent of such company in the discharge of, or for failure to discharge his duties as such.

SEC. 3. No action or cause of action now existing shall be affected by this act.

SEC. 4. No contract, receipt, rule or regulation between any employee and a railroad company, shall exempt such corporation from the full liability imposed by this act.

In interpreting this statute the supreme court of Wisconsin holds that it applies only in cases where the injured employee is one of that class engaged in operating moving trains, engines, and cars, and who was injured while actually so engaged. The court has also held that contributory negligence of the injured employee is a proper defense under this statute as it is at common law.

In this group of States which have passed special legislation affecting the liability of railroad companies, Massachusetts comes next, and in an amendment to section 212 of chapter 112 of the Public Statutes of 1882, the amending act being approved June 16, 1883, its legislature enacted the following:

And if an employee of such corporation [railroad] being in the exercise of due care is killed under such circumstances as would have entitled the deceased to maintain an action for damages against such corporation, if death had not resulted, the corporation shall be liable

in the same manner and to the same extent as it would have been if the deceased had not been an employee.

It is clear that this law did not so change the rule of the common law as to make the railroad company liable for the death of an employee caused by the negligence of a fellow-servant, and, in fact, the supreme court of the State has expressly so decided. It does nothing more than to give the right to the heirs or legal representatives of a deceased employee to maintain an action for damages for his death, a right which did not exist at common law, in such cases as would have entitled him to have recovered damages for his injuries had he lived.

Minnesota was next in order to pass a law of this character in an act approved February 24, 1887, and now contained in section 2701 of the General Statutes of Minnesota of 1894. Said section is as follows:

SECTION 2701. Every railroad corporation owning or operating a railroad in this State shall be liable for all damages sustained by any agent or servant thereof by reason of the negligence of any other agent or servant thereof, without contributory negligence on his part, when sustained within this State, and no contract, rule, or regulation between such corporation and any agent or servant shall impair or diminish such liability: *Provided*, That nothing in this act shall be so construed as to render any railroad company liable for damages sustained by any employee, agent, or servant while engaged in the construction of a new road, or any part thereof, not open to public travel or use.

In language this somewhat resembles the Iowa law above, although not containing the Iowa provision limiting the application of the law to those cases where the injuries were "connected with the use and operation" of the road. The supreme court of the State has, however, decided that the application of the statute is so limited, and that unless the employee was engaged in the operation of the road when injured he can not recover damages under this section. It has also held distinctly and on numerous occasions that damages can be recovered under this section when the negligence, which was the proximate cause of the injury, was that of a fellow-servant. Two other points have been settled by the same court to the effect that the act does not apply to street railways, and that it does include within its provisions a receiver operating a railroad under the appointment and direction of a court of equity as well as "railroad corporations."

In this connection Minnesota has enacted a statute which stands by itself as the only law of its kind in this country. It is chapter 324, acts of 1895, was approved April 24, 1895, and reads as follows:

SECTION 1. In any action where a verdict is hereafter rendered awarding damages on account of the negligence of a coemployee or coemployees, fellow-servant or fellow-servants of the injured party, the court, upon request of either party, made before the case is submitted to the jury, shall direct the jury to name and it shall be their

duty to name in their verdict such coemployee or coemployees, fellow-servant or fellow-servants, if the evidence shall disclose their names; and if the evidence does not disclose the name or names, then such coemployee or coemployees, fellow-servant or fellow-servants shall be designated by words of description, having reference to class of service, nature of employment or otherwise, so as to identify them as far as possible under the evidence.

Provided further, That this act shall not apply to cases where the name or description of such person or persons is not disclosed by the evidence.

This act can only apply in the case of suits against railroad companies, as only against such companies can verdicts be legally rendered which award damages on account of the negligence of fellow-servants. Its object appears to be to fix the responsibility for the negligence which caused the injury upon some particular employee or employees for the benefit of the railroad company.

Next to follow Minnesota in the order of legislating upon this subject was the State of Florida which, in an act approved June 7, 1887, provided that if an employee of a railroad company was injured without fault or negligence on his part, and the damage was caused by another employee, his employment by the railroad company should be no bar to his recovery of damages. By an amendment approved May 4, 1891, the wording of the act was changed so as to limit the injuries for which damages can be recovered in such cases to those caused "by the running of the locomotives, or cars, or other machinery" of the railroad company. The following, to be found on page 1008 of the Revised Statutes of 1892, is the law in its present form:

SECTION 3. If any person is injured by a railroad company by the running of the locomotives, or cars, or other machinery of such company, he being at the time of such injury an employee of the company, and the damage was caused by negligence of another employee, and without fault or negligence on the part of the person injured, his employment by the company shall be no bar to a recovery. No contract which restricts such liability shall be legal or binding.

The supreme court of Florida has decided that under the provisions of this statute an employee of a railroad company can not recover damages from such company for injuries sustained by him on account of the negligence of another employee, unless wholly without fault himself, even though in performing the act that resulted in the injury he was acting under the orders of a superior.

Ohio's law, the next in order of passage, is contained in section 3 of an act passed April 2, 1890, to be found on page 149, acts of Ohio of 1890. It is in language as follows:

SECTION 3. In all actions against the railroad company for personal injury to, or death resulting from personal injury, of any person, while in the employ of such company, arising from the negligence of such company or any of its officers or employees, it shall be held in addition

to the liability now existing by law, that every person in the employ of such company, actually having power or authority to direct or control any other employee of such company, is not the fellow-servant, but superior of such other employee, also that every person in the employ of such company having charge or control of employees in any separate branch or department, shall be held to be the superior and not fellow-servant of employees in any other branch or department who have no power to direct or control in the branch or department in which they are employed.

The next State to pass a law of this character, affecting railroad companies only, was Mississippi, and in section 193 of its present constitution, adopted November 1, 1890, it greatly relaxed the severity of the common-law rule, and declared that the legislature might extend the benefits provided therein to any other class of employees. Said section is in the following language:

SECTION 193. Every employee of any railroad corporation shall have the same right and remedies for any injuries suffered by him from the act or omission of said corporation or its employees, as are allowed by law to other persons not employees, where the injury results from the negligence of a superior agent or officer, or of a person having the right to control or direct the services of the party injured, and also when the injury results from the negligence of a fellow-servant engaged in another department of labor from that of the party injured, or of a fellow-servant on another train of cars, or one engaged about a different piece of work. Knowledge by any employee injured, of the defective or unsafe character or condition of any machinery, ways, or appliances, shall be no defense to an action for injury caused thereby, except as to conductors or engineers in charge of dangerous or unsafe cars, or engines voluntarily operated by them. Where death ensues from any injury to employees, the legal or personal representatives of the person injured shall have the same right and remedies as are allowed by law to such representatives of other persons. Any contract or agreement, express or implied, made by any employee to waive the benefit of this section shall be null and void; and this section shall not be construed to deprive any employee of a corporation or his legal or personal representative, of any right or remedy that he now has by the law of the land. The legislature may extend the remedies herein provided for to any other class of employees.

The supreme court of Mississippi, in a case decided in 1892, held that this section abolished the defense of contributory negligence in actions against railroad companies by employees for damages for injuries, unless the negligence was willful or reckless. In a later case, decided in 1895, it held that the statute did not go so far as to abolish this defense, but merely abrogated the common-law rule to the effect that knowledge by the employee of the defective or unsafe character of the machinery or appliances should preclude his recovery of damages for an injury. It has also been decided by the court that an engineer or conductor of a train while engaged in the routine duties of operating the train can not be considered to be "the superior agent or officer"

or "the person having the right to control or direct the services" within the meaning of the section.

In the Code of Mississippi, edition of 1892, which was adopted as official by the legislature of that year, first appears, in section 3559, what was practically a duplicate of section 193 of the constitution. By a subsequent amendment, passed by the legislature in 1896, the form of this section was changed, and it was made to apply against all classes of corporations, not being confined to railroads alone. This law will be discussed further along.

In this group of States Texas next appears, having passed an act, approved March 10, 1891, and amended in 1893, which defines the meaning of the terms "vice principal" and "fellow-servant" in the case of railroad companies, changing the common-law rule thereon. Said act is now contained in the following sections of the Revised Statutes of Texas of 1895:

SECTION 4560f. All persons engaged in the service of any railway corporation, foreign or domestic, doing business in this State, or in the service of a receiver, manager, or of any person controlling or operating such corporation, who are intrusted by such corporation, receiver, or person in control thereof, with the authority of superintendence, control, or command of other persons in the employment of such corporation, or receiver, manager, or person in control of such corporation, or with the authority to direct any other employee in the performance of the duty of such employee, are vice principals of such corporation, receiver, manager, or person controlling the same, and are not fellow-servants of such employee.

SEC. 4560g. All persons who are engaged in the common service of such railway corporation, receiver, manager, or person in control thereof, and who, while so employed, are in the same grade of employment and are working together at the same time and place, and to a common purpose, neither of such persons being intrusted by such corporation, receiver, manager, or person in control thereof, with any superintendence or control over their fellow-employees, or with the authority to direct any other employee in the performance of any duty of such employee, are fellow-servants with each other: *Provided*, That nothing herein contained shall be so construed as to make employees of such corporation, receiver, manager, or person in control thereof, fellow-servants with other employees engaged in any other department or service of such corporation, receiver, manager, or person in control thereof. Employees who do not come within the provisions of this section shall not be considered fellow-servants.

SEC. 4560h. No contract made between the employer and employee, based upon the contingency of death or injury of the employee, limiting the liability of the employer under this act, or fixing damages to be recovered, shall be valid and binding.

The supreme court of Texas has affirmed the constitutionality of this statute. It decided that the original act did not include the employees of a receiver of a railroad, but the amendment of 1893, approved May 4, 1893, provided that it should so apply. In decisions rendered in

1895 and 1896 the court held that the act did not include street railways within its provisions, and in 1897, by an act approved June 18, of that year, the legislature enacted a law very similar to the above, but applying to street railways as well as to trunk lines. Said act, being chapter 6 of the acts of 1897, is as follows:

SECTION. 1. Every person, receiver, or corporation operating a railroad or street railway the line of which shall be situated in whole or in part in this State, shall be liable for all damages sustained by any servant or employee thereof while engaged in the work of operating the cars, locomotives, or trains of such person, receiver, or corporation, by reason of the negligence of any other servant or employee of such person, receiver, or corporation, and the fact that such servants or employees were fellow-servants with each other shall not impair or destroy such liability.

SEC. 2. All persons engaged in the service of any person, receiver, or corporation, controlling or operating a railroad or street railway the line of which shall be situated in whole or in part in this State, who are intrusted by such person, receiver, or corporation with the authority of superintendence, control, or command of other servants or employees of such person, receiver, or corporation, or with the authority to direct any other employee in the performance of any duty of such employee, are vice principals of such person, receiver, or corporation, and are not fellow-servants with their coemployees.

SEC. 3. All persons who are engaged in the common service of such person, receiver, or corporation, controlling or operating a railroad or street railway, and who while so employed are in the same grade of employment and are doing the same character of work or service and are working together at the same time and place and at the same piece of work and to a common purpose, are fellow-servants with each other. Employees who do not come within the provisions of this section shall not be considered fellow-servants.

SEC. 4. No contract made between the employer and employee based upon the contingency of death or injury of the employee and limiting the liability of the employer under this act or fixing damages to be recovered shall be valid or binding.

SEC. 5. Nothing in this act shall be held to impair or diminish the defense of contributory negligence when the injury of the servant or employee is caused proximately by his own contributory negligence.

SEC. 6. The short duration of the special session of the legislature, and the fact that the existing fellow-servant law is inadequate to accomplish its purposes, and the fact that a large portion of our citizens have no adequate remedy for personal injuries sustained, create an emergency, and an imperative public necessity exists, that the constitutional rule requiring bills to be read on three several days be, and the same is hereby suspended, and that this act take effect and be in force from and after its passage, and it is so enacted.

This act would appear to practically supersede the older law, but as it contains no repealing clause, either general or special, the older law must be considered, in theory at least, still in force.

The next law of this character was passed by the Territory of New Mexico and was approved February 17, 1893. It is now contained in

the three following sections of the Compiled Laws of New Mexico of 1897:

SECTION 3216. Every corporation operating a railway in this Territory shall be liable in a sum sufficient to compensate such employee for all damages sustained by any employee of such corporation, the person injured or damaged being without fault on his or her part, occurring or sustained in consequence of any mismanagement, carelessness, neglect, default or wrongful act of any agent or employee of such corporation, while in the exercise of their several duties, when such mismanagement, carelessness, neglect, default or wrongful act of such employee or agent could have been avoided by such corporation through the exercise of reasonable care or diligence in the selection of competent employees, or agents, or by not overworking said employees or requiring or allowing them to work an unusual or unreasonable number of hours; and any contract restricting such liability shall be deemed to be contrary to the public policy of this Territory and therefore void.

SEC. 3217. It shall be unlawful for any such corporation knowingly and willfully to use or operate any car or locomotive that is defective, or any car or locomotive upon which the machinery or attachments thereto belonging are in any manner defective, or shops or machinery and attachments thereof which are in any manner defective, which defects might have been previously ascertained by ordinary care and diligence by said corporation.

If the employee of any such corporation shall receive any injury by reason of such defect in any car or locomotive or machinery or attachments thereto belonging, or shops or machinery and attachments thereof, owned and operated, or being run and operated by such corporation, through no fault of his own, such corporation shall be liable for such injury, and upon proof of the same in an action brought by such employee or his legal representatives, in any court of proper jurisdiction, against such railroad corporation for damages on account of such injury so received, shall be entitled to recover against such corporation any sum commensurate with the injuries sustained: *Provided*, That it shall be the duty of all the employees of railroad corporations to promptly report all defects coming to their knowledge in any such car or locomotive or shops or machinery and attachments thereof to the proper officer or agent of such corporation and after such report the doctrine of contributory negligence shall not apply to such employee.

SEC. 3218. Whenever the death of an employee shall be caused under circumstances from which a cause of action would have accrued under the provisions of the two preceding sections, if death had not ensued, an action therefor shall be brought in the manner provided by section 2310 of the Compiled Laws of New Mexico, as amended by chapter XLIX of the Session Laws of 1891 of New Mexico, and any sum recovered therein shall be subject to all of the provisions of said section 2310 as so amended.

This act differs in form from most of those preceding, and apparently does not wholly do away with the common law fellow-servant rule, but only holds the railroad corporation liable when the negligence of the employee on account of which the injury was incurred could have been avoided by the use of reasonable care and diligence by the corporation. It also makes it unlawful for the corporation to use defective

cars or locomotives, defective machinery and attachments thereto, and to operate defective shops or machinery and attachments thereof, and makes the corporation liable for injuries incurred by employees which were due to such use and operation, providing the defects might have been ascertained by the corporation by the use of ordinary care and diligence. No decisions of the supreme court of the Territory bearing upon this statute can be found.

By act approved February 28, 1893, the State of Arkansas next fell in line and removed railroad employees from the operation of the fellow-servant rule of the common law. This statute was practically a copy of the original Texas statute of 1891, above referred to, and is now to be found in the three following sections of the Digest of Arkansas of 1894:

SECTION 6248. All persons engaged in the service of any railway corporations, foreign or domestic, doing business in this State, who are intrusted by such corporation with the authority of superintendence, control or command of other persons in the employ or service of such corporation, or with the authority to direct any other employee, in the performance of any duty of such employee, are vice principals of such corporation, and are not fellow-servants with such employee.

SEC. 6249. All persons who are engaged in the common service of such railway corporations, and who, while so engaged, are working together to a common purpose, of same grade, neither of such persons being intrusted by such corporations with any superintendence or control over their fellow-employees, are fellow-servants with each other; *Provided*, Nothing herein contained shall be so construed as to make employees of such corporation in the service of such corporation fellow-servants with other employees of such corporation engaged in any other department or service of such corporation. Employees who do not come within the provisions of this section shall not be considered fellow-servants.

SEC. 6250. No contract made between the employer and employee based upon the contingency of the injury or death of the employee limiting the liability of the employer under this act, or fixing damages to be recovered, shall be valid and binding.

In three recent cases the supreme court of the State has held that under this statute if neither of two employees of a railroad company has superintendence over the other they are fellow-servants, and the corporation is not liable for an injury to one caused by the negligence of the other, but if one of them did exercise such superintendence or control then he is a vice principal, for whose negligence the corporation is liable. Under this interpretation an engineer was held to be a vice principal as to his fireman and the foreman of a section gang a vice principal as to the members of the gang.

By section 15 of article 9 of its present constitution, ratified December 4, 1895, South Carolina seems to have made her first departure from the common-law rule, and provided that railroad companies

should be liable for the injuries of their employees when, in any particular case, the injury resulted from the negligence of (1) a superior agent or officer, (2) a person having the right to control or direct the services of the injured party, or (3) a fellow-servant engaged in another department of labor from that of the party injured, or engaged on another train of cars or about another piece of work.

This statute appears in full below:

SECTION 15. Every employee of any railroad corporation shall have the same rights and remedies for any injury suffered by him from the acts or omissions of said corporation or its employees as are allowed by law to other persons not employees, when the injury results from the negligence of a superior agent or officer, or of a person having a right to control or direct the services of a party injured, and also when the injury results from the negligence of a fellow-servant engaged in another department of labor from that of the party injured, or of a fellow-servant on another train of cars, or one engaged about a different piece of work. Knowledge by any employee injured of the defective or unsafe character or condition of any machinery, ways or appliances shall be no defense to an action for injury caused thereby, except as to conductors or engineers in charge of dangerous or unsafe cars or engines voluntarily operated by them. When death ensues from any injury to employees, the legal or personal representatives of the person injured shall have the same right and remedies as are allowed by law to such representatives of other persons. Any contract or agreement, expressed or implied, made by any employee to waive the benefit of this section shall be null and void; and this section shall not be construed to deprive any employee of a corporation, or his legal or personal representative, of any remedy or right that he now has by the law of the land. The general assembly may extend the remedies herein provided for to any other class of employees.

Next in order of passage in this class of laws is the statute of Missouri, to be found on page 96 of the acts of 1897, and approved February 9, 1897. The last three sections of this act are quite similar to the acts, previously discussed, of Texas and Arkansas defining vice principals and fellow-servants, and the first section resembles the laws of Iowa and Minnesota already referred to. Said act reads as follows:

SECTION 1. Every railroad corporation owning or operating a railroad in this State shall be liable for all damages sustained by any agent or servant thereof while engaged in the work of operating such railroad by reason of the negligence of any other agent or servant thereof: *Provided*, That it may be shown in defense that the person injured was guilty of negligence contributing as a proximate cause to produce the injury.

SEC. 2. All persons engaged in the service of any such railroad corporation doing business in this State, who are intrusted by such corporation with the authority of superintendence, control or command of other persons in the employ or service of such corporation, or with the authority to direct any other servant in the performance of any duty of such servant, or with the duty of inspection or other duty

owing by the master to the servant, are vice principals of such corporation, and are not fellow-servants with such employees.

SEC. 3. All persons who are engaged in the common service of such railroad corporation, and who while so engaged, are working together at the same time and place, to a common purpose of same grade, neither of such persons being intrusted by such corporation with any superintendence or control over their fellow-employees, are fellow-servants with each other: *Provided*, That nothing herein contained shall be so construed as to make any agent or servant of such corporation in the service of such corporation a fellow-servant with any other agent or servant of such corporation engaged in any other department or service of such corporation.

SEC. 4. No contract made between any railroad corporation and any of its agents or servants, based upon the contingency of the injury or death of any agent or servant, limiting the liability of such railroad corporation for any damages under the provisions of this act, shall be valid or binding, but all such contracts or agreements shall be null and void.

The reporters as yet contain no decisions of the supreme court of Missouri which interpret or construe this statute.

In the order of time of enacting legislation of this character North Carolina comes next, and its statute, being chapter 56 of Vol. II, acts of North Carolina of 1897 (Private Laws) was ratified February 23, 1897. This act permits an employee of any railroad company who has been injured, owing to the negligence of a fellow-servant, or, in case of his death from such injuries, his personal representative, to maintain an action against the company. Its wording is as follows:

SECTION 1. Any servant or employee of any railroad company operating in this State, who shall suffer injury to his person, or the personal representative of any such servant, or employee who shall have suffered death, in the course of his services or employment with said company by the negligence, carelessness or incompetency of any other servant, employee or agent of the company, or by any defect in the machinery, ways or appliances of the company shall be entitled to maintain an action against such company.

SEC. 2. Any contract or agreement expressed or implied, made by any employee of said company to waive the benefit of the aforesaid section, shall be null and void.

The supreme court of North Carolina has sustained the constitutionality of this act, and has decided that it is a public act in spite of the fact that it was published by the State among the private acts of the year 1897.

The last of the States, up to this time, to pass a law of this nature, confined in its application to railroads, is North Dakota. Its statute, chapter 129 of the acts of 1899, was approved March 6, 1899, and is in the following language:

SECTION 1. Every railroad corporation owning or operating a railroad in this State shall be liable for all damages sustained by any

agent or servant thereof while engaged in switching or in the operation of trains by reason of the negligence of any other agent or servant thereof, without contributory negligence on his part when sustained within this State, and no contract, rule or regulation between such corporation and any agent or servant shall impair or diminish such liability. In actions brought under the provisions of this act, if the jury find for the plaintiff they shall specify in their verdict the name or names of the employee or employees guilty of the negligent act complained of.

The common-law rule is relaxed by this statute only when the injury complained of was incurred "in switching or in the operation of trains" and the last provision of the act to the effect that the jury must name the coemployee or coemployees to whose negligence the injury was due, is contained in the law of but one other State, Minnesota, as shown on page 1179, above.

GENERAL IN APPLICATION.

As will have been noted, the laws which have been quoted and discussed above modify the common-law rule as to the employers' liability for injuries caused by the negligence of a coemployee or fellow-servant only in those cases where the servants injured are in the employ of railroad companies and corporations. A number of the States have passed laws of this nature which go much further, and apply not only in the case of railroad employees but to many or all classes of employees. Of these Alabama, in an act approved February 12, 1885, was the first to make so radical a departure from the common law. Said statute, being originally act No. 51 of the acts of 1884-85, and having been later rewritten and its wording changed by the compilers of the Code of Alabama of 1886, is now contained in three sections of the State code of 1897, which read as follows:

SECTION 1749. When a personal injury is received by a servant or employee in the service or business of the master or employer, the master or employer is liable to answer in damages to such servant or employee, as if he were a stranger, and not engaged in such service or employment, in the cases following:

1. When the injury is caused by reason of any defect in the condition of the ways, works, machinery, or plant connected with, or used in the business of the master or employer.

2. When the injury is caused by reason of the negligence of any person in the service or employment of the master or employer, who has any superintendence intrusted to him, whilst in the exercise of such superintendence.

3. When such injury is caused by reason of the negligence of any person in the service or employment of the master or employer, to whose orders or directions the servant or employee, at the time of the injury, was bound to conform, and did conform, if such injuries resulted from his having so conformed.

4. When such injury is caused by reason of the act or omission of person in the service or employment of the master or employer,

done or made in obedience to the rules and regulations or by-laws of the master or employer, or in obedience to particular instructions given by any person delegated with the authority of the master or employer in that behalf.

5. When such injury is caused by reason of the negligence of any person in the service or employment of the master or employer, who has the charge or control of any signal, points, locomotive, engine, switch, car, or train upon a railway, or of any part of the track of a railway.

But the master or employer is not liable under this section, if the servant or employee knew of the defect or negligence causing the injury, and failed in a reasonable time to give information thereof to the master or employer, or to some person superior to himself engaged in the service or employment of the master or employer, unless he was aware that the master or employer, or such superior already knew of such defect or negligence; nor is the master or employer liable under subdivision one, unless the defect therein mentioned arose from, or had not been discovered or remedied owing to the negligence of the master or employer, or of some person in the service of the master or employer, and intrusted by him with the duty of seeing that the ways, works, machinery, or plant, were in proper condition.

SEC. 1750. Damages recovered by the servant or employee, of and from the master or employer, are not subject to the payment of debts, or any legal liabilities incurred by him.

SEC. 1751. If such injury results in the death of the servant or employee, his personal representative is entitled to maintain an action therefor, and the damages recovered are not subject to the payment of debts or liabilities, but shall be distributed according to the statute of distributions.

This act, as far as it goes, is a substantial copy of the well-known English act of 1880. It applies to all classes of employees with no exceptions. While the first clause of section 1749 goes but a little further than the common law, which imposed a positive duty upon the employer of providing a safe place in which to work, safe tools, appliances, etc., and rendered him liable for negligence in this respect, either his own or that of anyone to whom he had intrusted the performance of any of his positive duties, the four remaining clauses go far beyond the rule of the common law. This act makes the employer liable for the negligence of the following classes of servants:

1. Persons intrusted by the employer with the duty of seeing that the ways, works, machinery, or plant are in proper order.
2. Persons who have any superintendence intrusted to them by their employer.
3. Persons authorized to give the order or direction which occasioned the injury.
4. Persons acting in obedience to rules, regulations, or by-laws, obedience to which caused the accident.
5. Persons obeying particular instructions given by any persons duly authorized in that behalf by the employer.
6. Persons in charge of any signal, points, locomotives, engines,

switches, cars, or trains upon a railway or upon any part of a track of a railway.

Said act also provides that damages recovered by the servant or employee from his employer are not subject to the payment of his debts or legal liabilities, and that if the injuries result in the death of the employee an action may be maintained by his personal representatives.

In cases arising under this statute the supreme court of Alabama has decided that contributory negligence of the injured employee is as good a defense under the statute as it was at common law; that the common-law doctrine of *volenti non fit injuria* is not changed by the provisions of this law, and that an employee, with knowledge of a defect in the "ways, works, machinery, or plant," who continues in the service of the employer after the lapse of a reasonable time for its remedy, assumes the risk incident to such defect and can not recover for injuries which he receives in consequence thereof; that if the defect which was the cause of the injury was a hidden or latent one which could not have been discovered or remedied with reasonable care and inspection the employer is not liable, and that the common-law rule to the effect that it is a sufficient fulfillment of the employer's duty to adopt such machinery or appliances as are in ordinary use by prudently conducted concerns engaged in like business and surrounded by like circumstances applies also in cases arising under this act.

The court has also held that a servant injured in another State by the negligence of a fellow-servant, under such circumstances as would create no right of action against the employer under the law of said State, can not recover against said employer in Alabama, although the contract of employment was entered into and the services partly performed in Alabama.

The act declares that the employer is liable to the employee "as if he was a stranger, and not engaged in such service or employment."

In construing this clause the supreme court has said that "the purpose of the statute is to protect the employee against the special defenses growing out of and incidental to the relation of employer and employee, and the result is to take from the employer such special defenses, but to leave him all the defenses which he has by the common law against one of the public, not a trespasser nor a bare licensee."

The State of Massachusetts next, in chapter 270, acts of 1887, enacted by its legislature a statute of this character, and very similar to the Alabama statute, although differing in details. This law was approved May 14, 1887, and, as amended to date, it reads as follows:

SECTION 1 (as amended by chapter 260, acts of 1892, and by chapter 359, acts of 1893, and by chapter 499, acts of 1894). Where, after the passage of this act, personal injury is caused to an employee, who is himself in the exercise of due care and diligence at the time:—(1) By

reason of any defect in the condition of the ways, works or machinery connected with or used in the business of the employer, which arose from or had not been discovered or remedied owing to the negligence of the employer or of any person in the service of the employer and intrusted by him with the duty of seeing that the ways, works or machinery were in proper condition; or (2) by reason of the negligence of any person in the service of the employer, intrusted with and exercising superintendence, whose sole or principal duty is that of superintendence, or, in the absence of such superintendent, of any person acting as superintendent with the authority or consent of such employer; or (3) by reason of the negligence of any person in the service of the employer who has the charge or control of any signal, switch, locomotive engine or train upon a railroad, the employee, or in case the injury results in death the legal representatives of such employee, shall have the same right of compensation and remedies against the employer as if the employee had not been an employee of nor in the service of the employer, nor engaged in its work. And in case such death is not instantaneous, or is preceded by conscious suffering, said legal representatives may in the action brought under this section, except as hereinafter provided, also recover damages for such death. The total damages awarded hereunder, both for said death and said injury, shall not exceed five thousand dollars, and shall be apportioned by the jury between the legal representatives and the persons, if any, entitled under the succeeding section of this act, to bring an action for instantaneous death. If there are no such persons then no damages for such death shall be recovered, and the damages, so far as the same are awarded for said death, shall be assessed with reference to the degree of culpability of the employer herein, or the person for whose negligence he is made liable. A car in use by or in the possession of a railroad company shall be considered a part of the ways, works or machinery of the company using or having the same in possession, within the meaning of this act, whether such car is owned by it or by some other company or person.

SEC. 2. Where an employee is instantly killed or dies without conscious suffering, as the result of the negligence of an employer, or of the negligence of any person for whose negligence the employer is liable under the provisions of this act, the widow of the deceased, or in case there is no widow, the next of kin, provided that such next of kin were at the time of the death of such employee dependent upon the wages of such employee for support, may maintain an action for damages therefor and may recover in the same manner, to the same extent, as if the death of the deceased had not been instantaneous, or as if the deceased had consciously suffered.

SEC. 3 (as amended by chapter 155, acts of 1888, and by chapter 260, acts of 1892). Except in actions brought by the personal representatives under section one of this act to recover damages for both the injury and death of an employee, the amount of compensation receivable under this act in cases of personal injury shall not exceed the sum of four thousand dollars. In case of death which follows instantaneously or without conscious suffering, compensation in lieu thereof may be recovered in not less than five hundred and not more than five thousand dollars, to be assessed with reference to the degree of culpability of the employer herein, or the person for whose negligence he is made liable; and no action for the recovery of compensation for

injury or death under this act shall be maintained, unless notice of the time, place and cause of the injury is given to the employer within sixty days, and the action is commenced within one year, from the occurrence of the accident causing the injury or death. The notice required by this section shall be in writing, signed by the person injured or by some one in his behalf; but if from physical or mental incapacity it is impossible for the person injured to give the notice within the time provided in said section, he may give the same within ten days after such incapacity is removed, and in case of his death without having given the notice and without having been for ten days at any time after his injury of sufficient capacity to give the notice, his executor or administrator may give such notice within sixty days after his appointment. But no notice given under the provisions of this section shall be deemed to be invalid or insufficient solely by reason of any inaccuracy in stating the time, place or cause of the injury: *Provided*. It is shown that there was no intention to mislead, and that the party entitled to notice was not in fact misled thereby.

SEC. 4. Whenever an employer enters into a contract, either written or verbal, with an independent contractor to do part of such employer's work, or whenever such contractor enters into a contract with a subcontractor to do all or any part of the work comprised in such contractor's contract with the employer, such contract or subcontract shall not bar the liability of the employer for injuries to the employees of such contractor or subcontractor, by reason of any defect in the condition of the ways, works, machinery or plant, if they are the property of the employer, or furnished by him, and if such defect arose or had not been discovered or remedied, through the negligence of the employer or of some person intrusted by him with the duty of seeing that they were in proper condition.

SEC. 5. An employee or his legal representatives shall not be entitled under this act to any right of compensation or remedy against his employer in any case where such employee knew of the defect or negligence which caused the injury, and failed within a reasonable time to give, or cause to be given, information thereof to the employer, or to some person superior to himself in the service of the employer, who had intrusted to him some general superintendence.

SEC. 6. Any employer who shall have contributed to an insurance fund created and maintained for the mutual purpose of indemnifying an employee for personal injuries for which compensation may be recovered under this act, or to any relief society formed under chapter two hundred and forty-four of the acts of the year eighteen hundred and eighty-two, as authorized by chapter one hundred and twenty-five of the acts of the year eighteen hundred and eighty-six, may prove, in mitigation of the damages recoverable by an employee under this act, such proportion of the pecuniary benefit which has been received by such employee from any such fund or society on account of such contribution of said employer, as the contribution of such employer to such fund or society bears to the whole contribution thereto.

SEC. 7. This act shall not apply to injuries caused to domestic servants, or farm laborers, by other fellow-employees, * * *.

This does not apply, as did the Alabama statute, to all classes of employees, but excepts from its operation, by its own terms, domestic servants and farm laborers. It makes the employers liable for the negligence of the following classes of servants only:

1. Persons intrusted by the employer with the duty of seeing that the ways, works, or machinery were in proper condition.

2. Persons intrusted with and exercising superintendence whose sole and principal duty is that of superintendence.

3. Persons acting as superintendent with the authority and consent of the employer.

4. Persons in charge of any signal, switch, locomotive engine, or train upon a railroad.

In this respect, also, the act is narrower than the Alabama act, as it does not make the employer liable for the negligence of as many classes of employees.

In its provisions allowing damages for the death of the injured employee, and allowing damages for the injuries to be collected by the legal representatives of the employee in case of his death, this statute is more liberal than any other passed by other States. And no other State except Colorado, as will be seen later on, has a similar provision to that contained in section 4 of this act, which makes the employer liable in damages for the injuries of an employee of his contractor or subcontractor.

The supreme court of Massachusetts has held that clause 1 of section 1 of the employers' liability act, above, does not give a right of action against an employer for injuries sustained by an employee through the negligence of a fellow-servant in handling or using a machine, tool, or appliance which is in itself in proper condition; that it is not necessary, in order to render an employer liable for an injury occurring to an employee through a defect in the ways, works, or machinery, that said ways, etc., should belong to him, if it at least appear that he has control of them, and that they are used in his business, by his authority, express or implied; that loaded freight cars received by a railroad company from and belonging to other roads, to be hauled by such company over part of its road in due course of business, are a part of the works and machinery of such company within the meaning of said clause; that a track in the yard of a third party, owned, maintained, and repaired by him, and used by a railroad under contract with him for the delivery of freight in the yard is no part of the railroad's "ways" under this clause; that an unsuitableness of ways, works, or machinery for the work intended to be done, and actually done, by means of them, is a defect within the meaning of this clause, although the ways, etc., are perfect of their kind, in good repair, and suitable for some other work done in the employer's business; that even if there was a defect in the ways, etc., yet an employee can not recover, under this clause, unless his injury was caused by the defect; that under this clause the employer is not required to furnish the safest or best known machinery in use, or that with the latest improvements as to safety appliances, but he performs his full duty

when he furnishes machinery which is reasonably safe, and adapted to the purpose for which it is used; that the words "ways" and "works" in this clause apply only to ways and works of a permanent or quasi-permanent character. It has also decided in regard to clause 2 of section 1 that the negligence for which this clause makes the employer liable is that of a person not only intrusted with but exercising superintendence, and that the employer is not answerable for the negligence of a superintendent, who, at the time of, and in doing the act complained of, is not exercising superintendence, but is engaged in mere manual labor, or the duties of a common workman; that evidence that an employee exercised some acts of superintendence within a narrow scope of employment will not warrant a finding that his "sole or principal" duty was that of superintendence; that the fact that the negligent employee has the charge or control of the ways, works, or machinery does not make him a superintendent within this clause; that the failure of a superintendent to take proper precautions to protect employees who are engaged in the process of constructing the defendant's ways, works, or machinery is negligence under this clause; that where the injury was caused by the negligence of a superintendent the employer can not escape liability by showing that his own act contributed to the injury; that the temporary absence of the superintendent from his post of duty may be negligence under this clause in spite of the rule that the negligence must occur during the exercise of superintendence; that under this clause it is no defense to show that the superintendent was a careful workman or that the employer had exercised due care in selecting him, and that the fact that the injured employee is not subject to the orders or under the superintendence of the superintendent whose negligence caused the injury will not prevent a recovery of damages under this clause. Again, as to clause 3 of section 1, the court has decided that a locomotive and one or more cars, connected together and run upon a railroad constitute a "train" within the meaning of this clause, as is also a number of cars coupled together and moving from one point to another from an impetus imparted by a locomotive which has been detached; that a street railway car, operated by electricity upon a street railway track is not a locomotive engine or train upon a railroad within the meaning of this clause; that a locomotive engine at rest upon the rails of a railroad roundhouse, where it had been left for temporary repairs, is not "upon a railroad" within this clause; that to constitute a person one in "charge or control" of a train, etc., within this clause it is not necessary that he should have the general or usual charge or control of any signal, etc., but it is sufficient if he have charge or control for a temporary purpose, or for the time being; that by the words "any person * * * who has charge or control" is meant a person who, for the time being at least, has immediate authority to direct the

movements and management of the train as a whole, and of the men engaged upon it; that it is not necessary that the person in charge or control should have any particular office.

Under the provisions in the last part of the first section of this act the legal representatives of a deceased employee are empowered to sue for and recover damages for the conscious suffering of the deceased from the time of his injury to his death, and also, if he left a widow, or dependent next of kin, to recover damages for such death as a substantive cause of action. The damages recovered for the conscious suffering of the deceased have been held to constitute assets of his estate, and are therefore subject to the claims of his creditors and to the operation of his will, while the damages recovered for the death itself belong to the widow or next of kin. Section 2 of the act provides for the recovery of damages for the death of an employee who is instantly killed or dies without conscious suffering, and the supreme court has decided that "the effect of such provisions as to the distribution of the damages is to say that they shall not be assets for the payment of debts, and shall not pass by the will of the deceased, but shall be applied to the compensation of the persons who are presumed to have suffered the most by the death of the person injured; that if no widow or dependent next of kin are in existence upon the death of the employee instantly or without conscious suffering, no action for such death can be maintained under this section." In regard to the third section the court has held that the "next of kin dependent upon the wages of such employee for support" need not come within the class of persons whom the deceased, if able, was legally bound to support, but the fact of dependence is sufficient. As to the fourth section its meaning has been declared by the supreme court to be that the employer shall be liable when a contractor does part of his work and an employee of the contractor is injured by reason of a defect in the condition of the ways, etc., furnished by the employer to the contractor which has not been discovered or remedied through the negligence of the employer, or of some person intrusted by him with the duty of seeing that they were in proper condition, and that section 5 does not require an employee to prove his ignorance of danger, or the fact that he gave information concerning the same, before he can recover, but puts the burden of the proof to the contrary upon the defendant.

In connection with this act and as interpreting the meaning of the word "train" and the phrase "person in charge or control," etc., contained in clause 3 of section 1 of this act, the legislature enacted chapter 491 of the acts of 1897, which was approved June 10, 1897, and is expressed in the following words:

SECTION 1. One or more cars in motion, whether attached to an engine or not, shall constitute a train within the meaning of clause

three of section one of chapter two hundred and seventy of the acts of the year eighteen hundred and eighty-seven [the employers' liability act] and acts in addition thereto or in amendment thereof.

SEC. 2. Any person who, as a part of his duty for the time being, physically controls or directs the movements of a signal, switch or train shall be deemed to be a person in charge or control of a signal, switch or train within the meaning of clause three of section one of chapter two hundred and seventy of the acts of the year eighteen hundred and eighty-seven and acts in addition thereto or in amendment thereof.

In 1893, two States, Indiana and Colorado, by acts approved March 4, and April 8, respectively, enacted similar law to that contained in the statutes of Alabama and Massachusetts above. The Indiana statute in its present form, as it is to be found in the Annotated Statutes of Indiana of 1894, is as follows:

SECTION 7083. Every railroad or other corporation, except municipal, operating in this State, shall be liable for damages for personal injury suffered by any employee while in its service, the employee so injured being in the exercise of due care and diligence, in the following cases:

First. When such injury is suffered by reason of any defect in the condition of ways, works, plant, tools and machinery connected with or in use in the business of such corporation, when such defect was the result of negligence on the part of the corporation, or some person intrusted by it with the duty of keeping such way, works, plant, tools or machinery in proper condition.

Second. Where such injury resulted from the negligence of any person in the service of such corporation, to whose order or direction the injured employee at the time of the injury was bound to conform, and did conform.

Third. Where such injury resulted from the act or omission of any person done or made in obedience to any rule, regulation or by-law of such corporation, or in obedience to the particular instructions given by any person delegated with the authority of the corporation in that behalf.

Fourth. Where such injury was caused by the negligence of any person in the service of such corporation who has charge of any signal, telegraph office, switch yard, shop, roundhouse, locomotive engine or train upon a railway, or where such injury was caused by the negligence of any person, coemployee or fellow-servant engaged in the same common service in any of the several departments of the service of any such corporation, the said person, coemployee or fellow-servant, at the time acting in the place, and performing the duty of the corporation in that behalf, and the person so injured, obeying or conforming to the order of some superior at the time of such injury, having authority to direct; but nothing herein shall be construed to abridge the liability of the corporation under existing laws.

SEC. 7085. The damages recoverable under this act, shall be commensurate with the injury sustained unless death results from such injury, when, in such case, the action shall survive and be governed in all respects by the law now in force as to such actions: *Provided, That* where any such person recovers a judgment against a railroad or other corporation, and such corporation takes an appeal, and, pending such

appeal, the injured person dies, and the judgment rendered in the court below be thereafter reversed, the right of action of such person shall survive to his legal representatives.

SEC. 7086. In case any railroad corporation which owns or operates a line extending into or through the State of Indiana and into or through another or other States, and a person in the employ of such corporation, a citizen of this State, shall be injured as provided in this act, in any other State where such railroad is owned or operated, and a suit for such injury shall be brought in any of the courts of this State, it shall not be competent for such corporation to plead or prove the decisions or statutes of the State where such person shall have been injured as a defense to the action brought in this State.

SEC. 7087. All contracts made by railroads or other corporations with their employees, or rules or regulations adopted by any corporation releasing or relieving it from liability to any employee having a right of action under the provisions of this act are hereby declared null and void. The provisions of this act however shall not apply to any injuries sustained before it takes effect, nor shall it affect in any manner any suit or legal proceedings pending at the time it takes effect.

This law applies only to corporations, excepting municipal, and not in those cases where the employer is an individual or an unincorporated company. Within the sphere of its operation it renders all employers liable for the negligence of the same classes of employees as does the Alabama statute, and it does not limit the amount of damages to be recovered as does the Massachusetts act. It also provides that where death ensues from the injury the action shall survive.

The supreme court of Indiana has decided the above statute to be constitutional and valid; that it does not impose liability upon the employer for injuries resulting from the act or omission of the party injured, but that such party must be free from fault, and that a failure of the employee to show such freedom from fault would result in defeating an action under the act. It will be noted that the fourth clause of the first section makes an employer liable for the "negligence of any person * * * who has charge of any * * * switch yard," etc., while the acts of Alabama and Massachusetts, above, and of Colorado, soon to be discussed, use the term "switch." It was urged upon the supreme court that it was intended by the legislature that a comma should have been placed between the words "switch" and "yard," that making the sense and meaning of the clause to be that the employer should be held liable for the negligence of a person in charge of a switch or of a yard; but the court held that the words meant the same as "railroad yard," and that the employer could not be held liable under this act for the negligence of a person in charge of a switch.

The Colorado act, forming chapter 77 of the acts of 1893, is as follows:

SECTION 1. Where, after the passage of this act, personal injury is caused to an employee, who is himself in the exercise of due care and

diligence at the time: (1) By reason of any defect in the condition of the ways, works or machinery connected with or used in the business of the employer, which arose from or had not been discovered or remedied owing to the negligence of the employer, or of any person in the service of the employer, and intrusted by him with the duty of seeing that the ways, works and machinery were in proper condition; or (2) By reason of the negligence of any person in the service of the employer, intrusted with or exercising superintendence whose sole or principal duty is that of superintendence. (3) By reason of the negligence of any person in the service of the employer who has the charge or control of any switch, signal, locomotive engine or train upon a railroad, the employee, or in case the injury results in death the parties entitled by law to sue and recover for such damages shall have the same right of compensation and remedy against the employer, as if the employee had not been an employee of or in the service of the employer or engaged in his or its works.

SEC. 2. The amount of compensation recoverable under this act, in case of a personal injury resulting solely from the negligence of a coemployee, shall not exceed the sum of five thousand dollars. No action for the recovery of compensation for injury or death under this act shall be maintained unless written notice of the time, place and cause of the injury is given to the employer within sixty days, and the action is commenced within two years from the occurrence of the accident causing the injury or death. But no notice given under the provisions of this section shall be deemed invalid or insufficient solely by reason of any inaccuracy in stating the time, place or cause of injury: *Provided*, It is shown that there was no intention to mislead, and that the party entitled to notice was not in fact misled thereby.

SEC. 3. Whenever an employee enters into a contract, either written or verbal, with an independent contractor to do part of such employer's work, or whenever such contractor enters into a contract with a subcontractor to do all or a part of the work comprised in such contract or contracts with the employer, such contract or subcontract shall not bar the liability of the employer for injuries to the employees of such contractor or subcontractor, by reason of any defect in the condition of the ways, works, machinery or plant, if they are the property of the employer or furnished by him, and if such defect arose or had not been discovered or remedied through the negligence of the employer or of some person intrusted by him with the duty of seeing that they were in proper condition.

SEC. 4. An employee or those entitled by law to sue and recover, under the provisions of this act, shall not be entitled under this act to any right of compensation or remedy against his employer in any case where such employee knew of the defect or negligence which caused the injury, and failed within a reasonable time to give or cause to be given information thereof to the employer or to some person superior to himself in the service of his employer, who had intrusted to him some general superintendence.

SEC. 5. If the injury sustained by the employee is clearly the result of the negligence, carelessness or misconduct of a coemployee the coemployee shall be equally liable under the provisions of this act, with the employer, and may be made a party defendant in all actions brought to recover damages for such injury. Upon the trial of such action, the court may submit to and require the jury to find a special

verdict upon the question as to w[h]ether the employer or his vice principal was or was not guilty of negligence proximately causing the injury complained of; or w[h]ether such injury resulted solely from the negligence of the coemployee, and in case the jury by their special verdict find that the injury was solely the result of the negligence of the employer or vice principal, then and in that case the jury shall assess the full amount of plaintiff's damages against the employer, and the suit shall be dismissed as against the employee; but in case the jury by their special verdict find that the injury resulted solely from the negligence of the coemployee, the jury may assess damages both against the employer and employee.

Like the Alabama act this statute applies to employees of all classes of employers, whether individuals, companies, or corporations. It renders the employer liable for the negligence of only four classes of employees, the same as enumerated in discussing the Massachusetts statute above, and it further resembles the statute of Massachusetts in that it limits the amount of damages to be recovered and declares the employer liable to the employees of a contractor or subcontractor. It contains one provision unlike any in the statutes of the States previously mentioned to the effect that the coemployee through whose negligence the injury was caused shall be equally liable with the employer, and may be made a party defendant in all actions, and that damages may be assessed against the employer alone, or against both the employer and employee. In the recent case of *Mitchell v. Colorado Milling and Elevator Company* it was sought by a mother to recover damages for the death of her son, an employee of the company, under the provisions of section 2 of this act, and the court of appeals of Colorado in its decision held that no part of the act applied to or in any manner affected the right to recover or the recovery of damages sustained by any person other than an agent, servant, or employee of the party against whom a recovery is sought. In the course of its decision it used the following language:

The title of the * * * act is decisive of this case. It is "An act concerning damages sustained by agents, servants, and employees." This action is not founded upon any damages sustained by either an agent, servant, or employee, nor does it seek to recover any such. The damages sought to be recovered were those solely sustained and suffered by the plaintiff, who was neither an agent, servant, or employee of the defendant. It is true that the damages accrued to her by reason of the death of an employee, but they did not accrue to the employee, nor were they sustained or suffered by him. Again, and as conclusive of this case, * * * section 21 of article 5 of the constitution of the State provides that "No bill except general appropriation bills shall be passed containing more than one subject, which shall be clearly expressed in its title; but if any subject shall be embraced in any act which shall not be expressed in the title, such act shall be void only as to so much thereof as shall not be so expressed." It is clearly manifest, therefore, that this act of 1893 is obnoxious to this provision of the constitution in so far as it attempts to regulate,

restrict, or in any manner affect actions like those at bar, to recover damages by one who was in no capacity in the employ of the defendant.

Upon appeal of this case to the supreme court of the State this view of the statute was overruled, and the court said:

If, in the title to the act, * * * the word "damages" is used in its technical sense to express simply compensation for injuries received, or the amount which the injured party is entitled to recover, the construction given to the title by the court of appeals is manifestly correct. If, on the other hand, we give to it the meaning with which it is frequently used, and of which it is also susceptible as a law term, as expressing "the injury for which compensation is sought;" in other words, as synonymous with "injuries," the title sufficiently expresses the subject treated in the body of the act. We are inclined to accept the latter view, and for the purpose of this review assume the act to be constitutional.

The succeeding State to legislate in this line was Utah, which included its law in chapter 24 of the acts of 1896, approved February 21, 1896. This act is patterned upon the model of the Texas "fellow-servant act" above, but it is not confined, as is that act, to railroad employees, but applies in the case of employees of "any person, firm, or corporation." It defines vice principals and fellow-servants, including within the former title many who, under the common law, would have been classed with the latter, making the fact of control over or power to command the employee the test. Its language is as follows:

SECTION 1. All persons engaged in the service of any person, firm or corporation, foreign or domestic, doing business in this State, who are intrusted by such person, firm or corporation as employer with the authority of superintendence, control or command of other persons in the employ or service of such employer, or with the authority to direct any other employee in the performance of any duties of such employee are vice principals of such employer and are not fellow-servants.

SEC. 2. All persons who are engaged in the service of such employer, and who, while so engaged, are working together at the same time and place to a common purpose, of the same grade of service, neither of such persons being intrusted by such employer with any superintendence or control over his fellow-employees, are fellow-servants with each other: *Provided*, That nothing herein contained shall be so construed as to make employees of such employer in the service of such employer fellow-servants with other employees engaged in any other department of service of such employer. Employees who do not come within the provisions of this section shall not be considered fellow-servants.

Section 3559 of the annotated Code of Mississippi of 1892 was practically identical with section 193 of the constitution of Mississippi, previously noted, and confined the departure from the common-law rule to the case of railroad employees. By an amendment made in an

act approved March 11, 1896, the reading of said section was so changed as to make it apply in the case of the employees of all corporations. In its present form, as again amended by chapter 66, acts of 1898, approved January 31, 1898, it is given below:

SECTION 3559 (as amended by chapter 87, acts of 1896, and chapter 66, acts of 1898). Every employee of any corporation shall have the same rights and remedies for an injury suffered by him from the act or omission of the corporation or its employees, as are allowed by other persons not employees where the injury results from the negligence of a superior agent or officer, or of a person having the right to control or direct the services of the party injured; and also when the injury results from the negligence of a fellow-servant engaged in another department of labor from that of the party injured, or of a fellow-servant on another train of cars, or one engaged about a different piece of work. Knowledge by an employee injured of the defective or unsafe character or condition of any machinery, ways or appliances, or of the improper loading of cars, shall not be defense to an action for injury caused thereby, except as to conductors or engineers in charge of dangerous or unsafe cars or engines voluntarily operated by them. When death ensues from an injury to an employee an action may be brought in the name of the widow of such employee for the death of the husband, or by the husband for the death of his wife, or by the parent for the death of a child, or in the name of the child for the death of an only parent, for such damages as may be suffered by them respectively by reason of such death, the damages to be for the use of such widow, husband or child, except that in case the widow should have children the damages shall be distributed as personal property of the husband. The legal or personal representative of the person injured shall have the same rights and remedies as are allowed by law to such representatives of other persons. In every such action the jury may give such damages as shall be fair and just with reference to the injury resulting from such death to the persons suing. Any contract or agreement, expressed or implied, made by an employee to waive the benefit of this section shall be null and void; and this section shall not deprive an employee of a corporation or his legal personal representative of any right or remedy that he now has by law.

It appears that this act recognizes and lays down the principle of different departments of labor in the same business and that an employee does not assume the risk of the negligence of a coemployee engaged in a different department of labor from himself. This principle, as has already been mentioned, was engrafted into the common law by the courts of several of the States, notably Ohio and Kentucky, but has been repudiated as a common-law principle by the Supreme Court of the United States. This statute also provides that the knowledge by the employee of the unsafe condition of machinery, etc., shall be no defense, excepting in certain specifically enumerated cases, and that in case of the death of the employee the widow, husband, next of kin, and legal representatives, as the case may require, may recover damages. This subject of the bringing of suits to recover damages for the

death of an employee is treated more fully in an act first passed in 1880 and forming section 663 of the Annotated Code of Mississippi of 1892. This law as amended by acts approved March 23, 1896, and January 27, 1898, is in form as follows:

SECTION 1. Whenever the death of any person shall be caused by any real, wrongful or negligent act, or omission, or by such unsafe machinery, way or appliances, as would, if death had not ensued, have entitled the party injured or damaged thereby to maintain an action and recover damages in respect thereof, and such deceased person shall have left a widow or children, or both, or husband, or father, or mother or sister, or brother, the person or corporation, or both, that would have been liable if death had not ensued, and the representative of such person shall be liable for damages, notwithstanding the death, and the fact that death is instantaneous, shall, in no case, affect the right of recovery. The action for such damages may be brought in the name of the widow for the death of the husband, or by the husband for the death of the wife, or by a parent for the death of a child, or in the name of a child for the death of a parent, or by a brother for the death of a sister, or by a sister for the death of a brother, or by a sister for the death of a sister, or a brother for the death of a brother, or all parties interested may join in the suit, and there shall be but one suit for the same death, which suit shall inure for the benefit of all parties concerned, but the determination of such suit shall not bar another action unless it be decided on its merits. In such action the party or parties suing shall recover such damages as the jury may, taking into consideration all damages of every kind to the decedent and all damages of every kind to any and all parties interested in the suit. Executors or administrators shall not sue for damages for injury causing death except as below provided; but every such action shall be commenced within one year after the death of such deceased person.

SEC. 2. This act shall apply to all personal injuries of servants or employees received in the service or business of the master or employer, where such injuries result in death.

SEC. 3. Damages recovered under the provisions of this act shall not be subject to the payment of the debts or liabilities of the deceased, and such damages shall be distributed as follows: Damages for the injury and death of a married man shall be equally distributed to his wife and children, and if he has no children all shall go to his wife; damages for the injury and death of a married woman shall be equally distributed to the husband and children, and if she has no children all shall go to the husband; if the deceased has no husband nor wife, the damages shall be distributed equally to the children; if the deceased has no husband, nor wife, nor children, the damages shall be distributed equally to the father, mother, brothers and sisters, or to such of them as the deceased may have living at his or her death. If the deceased have neither husband, or wife, or children, or father, or mother, or sister, or brother, then the damages shall go to the legal representatives, subject to debts and general distribution, and the executor may sue for and recover such damages on the same terms as are prescribed for recovery by the next of kin in section 1, of this act, and the fact that deceased was instantly killed shall not affect the right of the legal representative to recover.

SEC. 4. All suits pending in any court at the time of the approval of this act and which were also pending at the time said chapter went into effect, shall not be affected by any of its provisions; but all such suits shall be conducted and concluded under the laws in force prior to the time of the approval of said act, on March 23, 1896.

No other States have passed laws similar to those just discussed above.

CONTRACTS RELIEVING THE EMPLOYER FROM LIABILITY.

In order to avoid the effect of the law of employers' liability both common and statute, it has become more or less the custom among employers to require of an employee as a condition of employment the making of a contract relieving the employer from the liability imposed by the law. In England it has been held that it is not contrary to the policy of the employers' liability act to waive the benefit of the same by contract, and that such contract is binding not only upon the employee himself but also upon his representatives in case of his death.

The supreme court of the State of Alabama, whose statute is, as has been noted, much the same as the English statute, holds a contrary view, and in a case heard in 1890 it decided that a stipulation in a contract of employment to the effect that the compensation paid "shall cover all risks incurred and liability to accident from any cause whatever, and if an employee is disabled by accident or other cause, the right to claim compensation for injuries will not be recognized," was in contravention to the provisions of the statute, opposed to public policy, and did not secure to the railroad company, in whose interest the stipulation in the contract had been made, exemption from statutory liability. A similar decision was rendered by the supreme court of the State of Kansas in 1883 when it held that a railroad company can not contract in advance with its employees for the waiver and release of the statutory liability imposed by its liability act upon every railroad company organized or doing business in the State, and a contract in contravention of the act is void and no defense to an action brought by an employee of a railroad company for damages done to him in consequence of the negligence or mismanagement of a coemployee.

Irrespective of statute, it has generally been held by the courts of the United States that a contract made in advance, whereby an employee agrees to release and discharge his employer from liability for any injury he may receive by reason of the negligence of his employer, or of his servants, is contrary to public policy, and void. This principle has been announced by a Federal court in the following well-chosen language: "As a general proposition, it is unquestionably true that an employer can not relieve itself from responsibility to an employee for an injury resulting from his own negligence by any contract entered into for that purpose before the happening of the injury."

A contrary rule to the above prevailed in the State of Georgia. In a decision rendered by the supreme court of that State in 1873 it was held that where an employee of a railroad company, by special written contract, made at the time he was employed, and in consideration of said employment, agreed "to take upon himself all risks connected with or incident to his position on the road, and that he would in no case hold the company liable for any damage he might sustain by accidents or collisions on the trains or road, or which may result from the negligence, or carelessness, or misconduct of himself or other employee or person connected with such road, or in the service of the company," such a contract, so far as it did not waive any criminal neglect of the company or its principal officers, was a legal contract and binding upon the employee, and in effect waived all his rights under the law. In other words, the court held that it was legal for an employee to contract with his employer, before the happening of an injury caused by the negligence of the employer, to relieve such employer of all liability in damages for said injury.

STATUTES FORBIDDING SUCH CONTRACTS GENERALLY.

If the above ruling of the Georgia court is a correct interpretation of the law, a little thought will make it clear that an employer of labor might refuse employment to a would-be employee unless he would sign a contract of this nature; and, either for this or some other reason, the legislature of the State, by act approved December 16, 1895, declared such contracts to be null and void. The act, No. 184 of the acts of Georgia of 1895, is in the following language:

SECTION 1. * * * All contracts between master and servant, made in consideration of employment, whereby the master is exempted from liability to the servant arising from the negligence of the master or his servants, as such liability is now fixed by law, shall be null and void as against public policy.

It will be seen that this law is general in its terms, and declares contracts to be null and void which exempt the employer from the liability as "now fixed by law," not confining the prohibition to the contracts exempting an employer from the liability as defined by any particular statute.

Another act as general in its application as that of Georgia, above, is a statute of the State of Massachusetts, which, prior to the passage of its employers' liability act, by section 3 of chapter 101, acts of 1877, enacted a law providing that no employer should by special contract with persons in his employ exempt himself from liability for injuries of such persons which resulted from his negligence, etc. Said statute has continued to be the law of the State, and is to be found at the present time in section 6 of chapter 508 of the acts of 1894, approved June 22, 1894. Its language is as follows.

SECTION 6. No person or corporation shall, by a special contract with persons in his or its employ, exempt himself or itself from any liability which he or it might be under to such persons for injuries suffered by them in their employment and which result from the employer's own negligence or from the negligence of other persons in his or its employ.

But one other State, Ohio, has a statute of this nature, and that, while general in the sense that it declares void an agreement to waive the right to damages for injuries which arise under either statute or common law, is still restricted in its application to contracts made by railroad employees. This statute is contained in section 1 of an act passed April 2, 1890, to be found on page 149 of the acts of Ohio of 1890. It reads as follows:

SECTION 1. It shall be unlawful for any railroad or railway corporation or company owning and operating, or operating * * * a railroad in whole or in part in this State, to adopt or promulgate any rule or regulation for the government of its servants or employees, or make or enter into any contract or agreement with any person engaged in or about to engage in its service, in which, or by the terms of which, such employee in any manner, directly or indirectly, promises or agrees to hold such corporation or company harmless, on account of any injury he may receive by reason of any accident to, breakage, defect or insufficiency in the cars or machinery and attachments thereto belonging, upon any cars so owned and operated, or being run and operated by such corporation, or company being defective, and any such rule, regulation, contract or agreement shall be of no effect. * * * And no railroad company, insurance society or association, or other person shall demand, accept, require, or enter into any contract, agreement, stipulation with any person about to enter, or in the employ of any railroad company whereby such person stipulates or agrees to surrender or waive any right to damages against any railroad company, thereafter arising for personal injury or death, or whereby he agrees to surrender or waive in case he asserts the same, any other right whatsoever, and all such stipulations and agreements shall be void, and every corporation, association or person violating or aiding or abetting in the violation of this section shall for each offense forfeit and pay to the person wronged or deprived of his rights hereunder the sum not less than fifty dollars (\$50) nor more than five hundred dollars (\$500) to be recovered in a civil action.

This act has been declared unconstitutional by the court of common pleas of Warren County, Ohio, on the ground that it violated section 1 of article 1 of the constitution of the State, as interfering with the right of private contract, and in a case decided in 1896 by the United States circuit court for the northern district of Ohio, the same decision was made, and the court held that this statute, in denying to the employees of a railroad corporation the right to make their own contracts concerning their own labor, is depriving them of "liberty," and of the right to exercise the privileges of manhood, "without due process of law;" that, being directed solely to employees of railroads, it is

class legislation of the most vicious character, and that for the above reasons the statute is unconstitutional. This decision does not seem to accord with the common-law principle, above referred to, to the effect that a contract made in advance, whereby an employee agrees to release and discharge his employer from liability for any injury he may receive, due to said employer's negligence or that of his servants, is null and void.

**STATUTES FORBIDDING SUCH CONTRACTS WHERE THE LIABILITY IS
IMPOSED BY STATUTE.**

Many of the States have included in their statutes regulating the liability of the employer a provision to the effect that no contract restricting the liability imposed by the statute, or waiving the benefit of the same, shall be legal or binding. They are Arkansas, Florida, Indiana, Iowa, Minnesota, Mississippi, Missouri, New Mexico, North Carolina, North Dakota, South Carolina, Texas, and Wisconsin, to be found on pages 1185, 1180, 1197, 1175, 1179, 1181, 1201, 1187, 1184, 1187, 1188, 1186, 1182, 1183, 1177, and 1178, above, respectively.

An examination of these laws will reveal the fact that, in addition to declaring the illegality of a contract of this nature, the laws of Indiana, Minnesota, North Dakota, and Wisconsin include under the same ban any "rule or regulation" exempting the employer from full liability under the act.

RELIEF ASSOCIATIONS.

It will be seen by a reference to section 1 of the act of Ohio passed April 2, 1890, on page 1205, above, that the last paragraph of the same provides that "no railroad company, insurance society or association, * * * shall demand, accept, require, or enter into any contract * * * with any person about to enter, or in the employ of any railroad company whereby such person stipulates or agrees to surrender or waive any right to damages * * * thereafter arising for personal injury or death," etc. This paragraph appears to be aimed at a practice which has grown up in recent years, and which is now quite common, among railroad companies at least. It may be described briefly as follows: A relief association is organized by a railroad corporation, designed to furnish money benefits and often free hospital treatment to employees of such corporation when disabled by accident or sickness and to provide a certain sum of money for their families upon their death. Its affairs are exclusively under the management of the corporation which contributes to its funds. A certain proportion of the wages of each employee who is a member of such association is retained by the company and turned over to the benefit fund of the association. It has become the custom to include in the application for membership in such association the following or a sim-

ilar agreement on the part of the employee: "The said applicant agrees that, in consideration of the contributions of the said company to the relief and hospital department, and of the guaranty by it of the payment of the benefits aforesaid, the acceptance of the benefits from the said relief and hospital department for injury or death shall operate as a release of all claims against said company for damages by reason of such injury or death." Many of these applications, in addition to the above agreement, contain the following: "And I, or my legal representatives, will execute such further instrument as may be necessary formally to evidence such acquittance." This sort of an agreement, contained as it usually is in the printed application for membership which must be signed by each employee who desires to join such association, is evidently designed to relieve the railroad corporation of its legal liability for damages for injuries, and at first thought seems plainly antagonistic to the principles of the common law and the provisions of the various statutes which prohibit contracts, etc., waiving the employer's liability.

Such agreements, coupled with the fact of the actual acceptance of aid from the benefit fund after receipt of injury, have frequently been set up as matter of defense in suits brought against railroad companies for damages for injuries. The result of the decisions of the courts of different States seems to be to hold such contracts valid. It has been generally held that while a contract by which an employer attempts to relieve himself from a future liability for injuries or death of an employee would be void as against public policy and frequently as being in violation of statute, yet the agreements or contracts now being considered are not of that class, but are only contracts for a choice between sources of compensation for the injury, where but a single source of compensation existed prior to the making of such a contract; that such an agreement recognizes that enforceable liability may arise, and only stipulates that, if the employee shall prosecute a suit to final judgment against the company, he shall thereby forfeit his right to the relief fund, and, if he accepts compensation from the relief fund, he shall thereby forfeit his right of action against the company, and that it is the final choice, the acceptance of one against the other, that gives validity to the transaction.

In the case previously referred to, in which the Ohio statute forbidding the making of a contract by an employee with a railroad company, in which he waives any future right to damages which might arise, was declared unconstitutional by the United States circuit court (see page 1205, above), the court in its decision used the following language:

It will be observed that it is the acceptance of benefits from this relief fund which, by the agreement, releases the railroad company from a claim for damages. If the employee injured does not accept

such benefits, but chooses to sue for damages, his right of action is unimpaired and in no respect waived. This is the case as presented by the pleadings and admitted facts. It is not a question of whether a railroad company, by contract with its employees, can exempt itself from suits for personal injuries caused by its negligence. That, as a general rule, can not be done.

In a similar case involving a contract of this kind and its legality, when tested by the provisions of section 7087 of the Annotated Statutes of 1894 (see page 1197, above), the supreme court of Indiana held that "the contract forbidden by the statute is one relieving the company from liability for the future negligence of itself and employees. The contract pleaded does not provide that the company shall be relieved from liability. It shows that if disabled * * * by the fault of the corporation, he (the injured employee) may, after injury, elect whether he will accept the benefits from the fund or pursue his remedy at law against the company, and that when he signs the contract the only obligation assumed is that, if injured by the fault of the corporation, he will not seek double compensation by pursuing both the relief fund and the company."

In deciding upon the validity of a contract or agreement of this nature the supreme court of Iowa has held that it was a legal and binding contract, not void as being against public policy, and not invalid under the concluding clause of section 2071 of the Code of 1897 (see page 1175, above). Subsequent to the rendering of this decision, and apparently for the purpose of preventing the making of such agreements, chapter 49 of the acts of 1898, amending section 2071, above referred to, was passed by the State legislature and was approved March 8, 1898. It reads as follows:

SECTION 1. Section number two thousand and seventy-one of the code [shall] be amended by adding at the end thereof the following: 'Nor shall any contract of insurance, relief, benefit, or indemnity in case of injury or death, entered into prior to the injury, between the person so injured and such corporation, or any other person or association acting for such corporation, nor shall the acceptance of any such insurance, relief, benefit, or indemnity by the person injured, his widow, heirs, or legal representatives after the injury, from such corporation, person, or association, constitute any bar or defense to any cause of action brought under the provisions of this section, but nothing contained herein shall be construed to prevent or invalidate any settlement for damages between the parties subsequent to injuries received.'

This legislation stands by itself, as no other State has so far attempted by statute to declare, as does this amendment, that such an agreement and the acceptance of benefits from a relief fund shall constitute no bar to any cause of action, etc. Whether such a provision can stand the test of constitutionality may well be doubted, and it will be interesting to observe whether, should the question come up in the courts, it

will not be held to deny to the employees affected thereby the right to make contracts, and consequently to deprive them of liberty, etc., without due process of law. In the sixth section of the employers' liability act (chapter 270, acts of 1887—see page 1192, above), the State of Massachusetts attacks the subject of how far the acceptance of benefits by an employee from a fund to which his employer has contributed should relieve such employer from liability for injury of said employee, and provides that such employer may prove in mitigation of the damages recoverable by an employee "such proportion of the pecuniary benefit which has been received by such employee from any such fund or society on account of such contribution of said employer, as the contribution of such employer to such fund or society bears to the whole contribution thereto." No case appears to have been decided in the courts of Massachusetts in which the validity of such an agreement as that now being considered was called in question, and it can not therefore be stated with certainty whether the above provision of section 6 would preclude the employer from escaping all liability in case an employee had agreed to elect between the benefit fund of a relief association or a suit for damages against the employer.

The supreme court of Nebraska has decided that such a contract of an employee did not lack consideration; that the promise made by the employee to the relief department for the benefit of the railroad company was available to the latter as a cause of action or defense; that such contract was not contrary to public policy; that the effect of such contract was not to enable the railroad company to exonerate itself by contract from liability for the negligence of itself or servants; that the employee did not waive his right of action against the railroad company, in case he should be injured by its negligence, by the execution of the contract; and that it is not the execution of the contract that estops the injured employee, but his acceptance of moneys from the relief department on account of his injury after his cause of action against the railroad on account thereof arises.

The supreme courts of the States of Illinois, New Jersey, and South Carolina have also rendered decisions upholding the legality of such agreements or contracts as those we have been considering, and no decision of the highest court of any State can be found which holds to a contrary view.

CONCLUSION.

The above is believed to be a fairly clear and comprehensive statement of the present state of the law of employers' liability in the United States. Owing to the multiplicity of the statutes passed by the legislatures of the different States, together with the fact that they are all applied and interpreted by courts composed of many different individuals whose intellectual faculties do not all work in the same groove,

and whose judgments, therefore, do not always coincide, and also to the further fact that in no two cases are the facts precisely the same, there is always an uncertainty as to the outcome in each particular action brought for the recovery of damages for injuries.

For the above reason it is no doubt true that many cases are compromised or are dropped altogether by employees rather than to incur the expense of a suit at law and to risk the uncertain outcome thereof; and on the other hand many employers are put to much trouble and expense in defending suits which never should have been brought, the employees having, as the results demonstrated, no legal case.

That this condition of affairs—this uncertainty as to whether the law affords a remedy—can ever be improved while the human intellect continues to be fallible and the present line of legislation continues to be followed is greatly to be doubted, and it is this fault of the law in its application which led to the radical changes in the plan of legislation which have been made by Great Britain in her recent workman's compensation act and by Germany in her law of compulsory insurance against accidents.

Whether legislation upon these lines, viz, the making the employer responsible for all injuries of his employees, regardless of the question of the employer's negligence, as has been done in England and other countries, and the system of compulsory insurance of the employees against accidents, as adopted in Germany, will ever be adopted in this country or not, or whether some other and at present unknown remedy for the faults of the present system will be discovered and formulated in legislation is a question which the future only can determine. No special agitation toward this end has been made in any State of the Union, nor has any such legislation yet been enacted. If any radical changes in the plan of legislation upon this subject are made it seems most probable that they will come about through action of the State legislatures and not of the Federal Congress.

CONDITION OF RAILWAY LABOR IN ITALY.

BY DR. LUIGI EINAUDI.

The present article treats of the condition of railway labor in Italy. The reader will notice quite a difference between this article and the one relating to the condition of railway labor in other countries of Europe (Bulletin No. 20). The most important reason for this difference must be found in the railway legislation enacted in Italy in the year 1884.

The railways in Italy were originally in the hands of private companies. The Government gradually acquired them all, some on one ground, some on another, and administered them directly. The system of governmental administration of the railways, however, does not appear to have been satisfactory, and for this reason the so-called "conventions" or contracts were made in 1884. By the terms of these contracts the railways remained the property of the State, and were divided into three great systems: The Mediterranean system, which includes the railways running toward the Tyrrhenian Sea and the Mediterranean Sea or the western part of the peninsula; the Adriatic system, which includes the railways running toward the Adriatic Sea or the eastern part of the peninsula, and the Sicilian system, which comprises all the railways of Sicily.

These three systems were turned over to the management of three companies, which were called the Mediterranean, Adriatic, and Sicilian companies, respectively. The lease of these governmental railways to the companies was for a term of sixty years, beginning with July 1, 1885. However, at the end of each period of twenty years the State as well as the companies can abrogate the contract, and in that case the railways will revert to the State. The State as proprietor owns the lines, the stations, and the rolling stock, and provides for the extension of the system, the maintenance of that now existing, the purchasing of new rolling stock, etc. The companies must provide for the current expenses of operating the roads. Of the gross income $32\frac{1}{2}$ per cent goes to the State and $67\frac{1}{2}$ per cent to the operating companies.

As can be seen from this short review of the railway contracts now in force in Italy, the existing relations between the State, the companies, and the railway employees are necessarily very complicated.

1. It will be observed that the principal result of this arrangement is that the State, not operating the railways directly, finds it to its advantage not to renew the rolling stock which it must pay for; and, on the other hand, the companies find it to their interest to reduce the

operating expenses as much as possible without regard to the condition of the railways at the expiration of the contract. The companies, therefore, find it to their advantage to reduce the number of employees and to depart from the fixed wage lists which were established before 1885, and which according to the terms of the contract were to remain intact. Great difficulty, therefore, is met with in trying to obtain data relating to wages, and such information as has been obtained is imperfect and incomplete. This difficulty exists notwithstanding the fact that during the year 1899 the commission of inquiry on the relations between the railway employees and the companies presented its report in four large volumes, from which have been taken most of the facts used in the present article. The companies publish only such documents as can not injure them, and those documents throw very little light on the condition of the Italian railway employees.

2. The tendency of the companies to economize on the railway personnel has led to the adoption of systems of remuneration which help to increase the amount of labor performed by the individual employee and to diminish the cost of that labor. Of these systems some, like the supplementary wage system and the task system, are still used by nearly all other European railways, but there is one system which outside of Italy seems to have been adopted only, and that to a slight extent, by the Austrian Southern Railway (Südbahn), but which in Italy has acquired the greatest importance, viz, the system of gain-sharing in the stations. This system presents some new characteristics, and as this is a highly interesting form of remuneration of labor, it has been thought worth while to devote considerable space to its discussion. It is believed that it may prove of value to those who occupy themselves with the problems of labor and the methods of dividing the total products of industry between labor and capital.

3. The tendency of the companies to introduce economies in all branches of the railway service has led to a discontent which pervades all the railway employees. Although it is a fact that railway employees are better paid than other Italian workingmen, they still contend that they are being robbed by the companies who have obtained the railway concessions. The most important external manifestations of discontent are shown by the organization of railway labor and by strikes. To these two points have been assigned two special subdivisions. For the present it may be simply mentioned that Italian railway employees are placed in a peculiar position both as to organization of labor and as to strikes. In theory Italian workingmen are permitted to organize and to strike, and this might also be conceded to railway employees in the service of private companies. But employees in the service of a railway system which is owned by the State may be regarded as being attached to a public service of the State which for the time has been delegated to a private company. Acting upon this principle the Government of Italy, which has always

denied the right of its employees to organize or strike, has intervened by dissolving railway labor organizations and by repressing any attempt at railway strikes. It succeeded in this by introducing a system of militarism among the railway employees and by declaring strikes to be criminal offenses.

4. The complicated relations existing between the State and these companies, and the lack of clearness in some points of the contracts of concession, are the causes which render it impracticable for the time being to consider the pension fund for railway employees. It is true that there are some funds in existence out of which pensions should be paid to superannuated and disabled railway employees, but as no attention has ever been given to these funds either by the companies or by the State they are meeting with tremendous deficits and it is not known how this evil can be remedied. It is hardly proper to speak of these pension funds, at least until they are reorganized and present some guarantee of stability and good management. A bill for the reorganization of the pension funds is now being discussed by Parliament.

NUMBER OF EMPLOYEES.

As to the number of persons employed in the Adriatic, the Mediterranean, and the Sicilian systems, the tables following give an idea sufficiently exact.

The initial personnel of the Mediterranean and the Adriatic systems was that which in 1885 belonged to the various railway administrations in the State and amounted to 72,961 persons, of which 41,098 belonged to the upper Italian railways, 12,616 to the Roman railways, 17,692 to the southern and Calabrese railways, and 1,555 to the establishments of Pietrarsa and of the Granili. Of these 72,961 persons, 39,724 were assigned to the Mediterranean system and 33,237 to the Adriatic system.

The division of the employees among the three great systems, from 1885 to 1897, follows in detail:

TOTAL EMPLOYEES, AND EMPLOYEES PER MILE IN OPERATION, ON MEDITERRANEAN SYSTEM JULY 1, 1885, TO JULY 1, 1897.

Year.	Miles in operation.	Permanent employees.		Temporary employees.		Total employees.		Physicians not included in total.	Females included in total.
		In service.	Per mile in operation.	In service.	Per mile in operation.	In service.	Per mile in operation.		
1885.....	2,615.97	39,625	15.15	3,173	1.21	42,802	16.36	96	1,482
1886.....	2,709.17	39,754	14.67	5,665	2.09	45,419	16.76	528	1,564
1887.....	2,827.23	39,849	14.09	6,583	2.33	46,432	16.42	569	1,584
1888.....	2,854.57	41,248	14.45	6,741	2.36	47,989	16.81	619	1,496
1889.....	2,949.02	43,339	14.70	5,639	1.91	48,978	16.61	695	1,966
1890.....	3,006.19	43,731	14.55	4,390	1.46	48,121	16.01	739	2,236
1891.....	3,044.71	43,662	14.34	3,010	.99	46,662	15.33	747	2,442
1892.....	3,232.99	42,876	13.26	2,853	.88	45,729	14.14	780	2,497
1893.....	3,277.11	43,432	13.25	2,965	.91	46,397	14.16	806	2,941
1894.....	3,415.67	43,165	12.64	2,836	.83	46,001	13.47	840	2,921
1895.....	3,547.40	44,247	12.47	4,390	1.24	48,637	13.71	861	3,148
1896.....	3,685.35	44,622	12.11	4,407	1.19	49,029	13.30	889	3,154
1897.....	3,692.18	45,222	12.25	4,359	1.18	49,581	13.43	898	3,082

**TOTAL EMPLOYEES, AND EMPLOYEES PER MILE IN OPERATION, ON ADRIATIC SYSTEM
JANUARY 1, 1885, TO JANUARY 1, 1897.**

Year.	Miles in operation.	Permanent employees.		Temporary employees.		Total employees.		Non-salaried physicians not included in total.	Females included in total.
		In service.	Per mile in operation.	In service.	Per mile in operation.	In service.	Per mile in operation.		
1885(a) . . .	2,642.85	28,077	10.62	4,960	1.88	33,037	12.50	173	1,012
1886	2,699.39	31,625	11.71	2,695	1.00	34,320	12.71	564	1,012
1887	2,802.40	32,184	11.24	3,075	1.06	35,259	12.32	598	1,012
1888	2,837.58	33,064	11.25	3,221	1.10	36,285	12.35	597	1,012
1889	3,095.27	34,583	11.18	3,692	1.19	38,275	12.37	582	2,012
1890	3,174.65	35,465	11.17	3,752	1.18	39,217	12.35	588	2,012
1891	3,196.16	36,923	11.55	3,362	1.05	40,285	12.60	591	2,012
1892	3,214.49	36,574	11.38	3,434	1.07	40,008	12.45	614	2,012
1893	3,534.55	34,826	10.45	3,947	1.18	38,773	11.63	636	2,012
1894	3,463.65	33,706	9.90	4,172	1.23	37,878	11.13	639	2,012
1895	3,382.59	32,572	9.63	4,543	1.34	37,115	10.97	630	2,012
1896	3,444.81	31,730	9.21	4,682	1.36	36,412	10.57	651	2,012
1897(a) . . .	3,444.81	32,207	9.35	3,389	1.04	35,796	10.39	654	2,012

a July 1.

**TOTAL EMPLOYEES, AND EMPLOYEES PER MILE IN OPERATION, ON SICILIAN SYSTEM
JULY 1, 1885, TO JULY 1, 1897.**

Year.	Miles in operation.	Permanent employees.		Temporary employees.		Total employees.	
		In service.	Per mile in operation.	In service.	Per mile in operation.	In service.	Per mile in operation.
1885	372.20	3,917	10.52	175	0.47	4,092	10.98
1886	395.81	3,849	9.72	202	.51	4,051	10.23
1887	415.08	3,750	9.03	199	.48	3,949	9.51
1888	418.18	3,628	8.68	156	.37	3,784	9.05
1889	438.69	3,505	8.20	137	.31	3,732	8.51
1890	447.39	3,464	7.74	139	.31	3,603	8.06
1891	489.64	3,438	7.02	119	.24	3,557	7.28
1892	532.51	3,535	6.64	62	.11	3,597	6.75
1893	623.23	3,844	6.17	42	.07	3,886	6.24
1894	653.06	3,964	6.07	80	.12	4,044	6.19
1895	692.83	4,126	5.96	35	.05	4,161	6.01
1896	697.80	4,172	5.98	75	.11	4,247	6.09
1897	697.80	4,238	6.07	186	.27	4,424	6.34

It will be seen from the tables given that in the Adriatic system the figures representing the relation between the number of employees and the mileage in operation remained high and even increased during the period from 1885 to 1892, but in 1893 there was a marked decrease, and the downward tendency continued until 1897, when the lowest point was reached. A similar fluctuation occurred in the Mediterranean system. The figures remained high, some years increasing, until 1890, after which they decreased quite rapidly to reach finally in 1896 and 1897 the lowest points. This decreasing tendency, which for the companies of the mainland manifests itself only in a second period of operation, manifests itself immediately in the Sicilian system. It commenced with 1886 and continued until the last few years—infallible signs, without doubt, of the intention of this company from its beginning to gradually diminish the expenditures for employees.

It is thus shown that on July 1, 1897, the date on which are based all the calculations published by the commission of inquiry, the number of employees per mile operated by the three principal Italian sys-

tems was 13.43 for the Mediterranean, 10.39 for the Adriatic, and 6.34 for the Sicilian system, or 11.46 for the three systems combined. It certainly can not be contended that the number of employees on Italian railways is excessive. The number of men employed per mile is inferior to that of many other European railways. This is due to the persevering efforts made by the various companies to reduce the number of their employees in order to obtain greater profits in the operation of the railways, the cost of which in Italy is very high. The fact remains that whether caused by the nature of the country traversed by the roads, by the numerous tunnels, or by the malaria existing in many regions traversed by the railways, the expenditures in payment of employees are greater than those of many other foreign railways, as can be seen from the following table:

PER CENT OF EXPENDITURES IN PAYMENT OF EMPLOYEES ON EUROPEAN RAILWAY SYSTEMS OF TOTAL RECEIPTS AND OF TOTAL OPERATING EXPENSES.

Railway systems.	Per cent of total receipts.	Per cent of total operating expenses.
Austrian State system (1891).....	34.37	58.53
Belgian State system (1894).....	31.59	55.84
Imperial system of Alsace-Lorraine (1894-95).....	36.51	63.11
Italy:		
Mediterranean system (1893).....	47.96	69.82
Adriatic system (1893).....	44.93	68.48
Sicilian system (1893).....	55.31	59.30
Prussian State system (1894-96).....	36.22	65.35
Swiss system of the Gothard (1894).....	23.10	48.55

The size of these expenditures explains the reason why the three companies have tried to diminish the number of their employees, either by adopting the system of gain-sharing in the stations or by having recourse to temporary employees at certain periods of the year when there is increased railway activity, as, for instance, during the time of transporting the grape crop in the months of September and October. The system of gain-sharing will be treated further on. So far as the temporary employees are concerned, they are engaged only from day to day when there is a necessity for their services, and only for the length of time that necessity exists. It will be seen that in the year 1897, in the Adriatic system, there were 32,207 persons more or less regularly employed, while there were 3,589 temporary employees; in the Mediterranean system the proportion was 45,222 regular to 4,359 temporary employees, and in the Sicilian system there were 4,238 regular and 186 temporary employees. It will be seen that about one-tenth of the employees are temporary, and it is among these workmen, who have very little hope of retaining their positions, that the discontented are mostly found. On the other hand, the companies contend, and with reason, that they can not afford to employ regularly a large personnel when the increased number can be used only in certain extraordinary emergencies, as, for instance, the time of vintage, which lasts from 30 to 40 days in a whole year.

HOURS OF LABOR.

The Italian law of March 20, 1865, regarding public works, while it treats specifically of the numerical sufficiency and the proficiency of the personnel, is silent so far as hours of labor are concerned. Article 10 simply provides that "the companies must fix a time schedule of service for the employees so as to allow them the necessary hours of continuous rest." This article is the only one now actually in force, and is so vague that it has no real bearing and importance.

As to the state of affairs actually existing, there is a marked difference between the statements of the companies and those of the railway employees. The three companies uniformly affirm that the time schedules are so arranged as to provide for the necessary rest. According to the statement of the Adriatic company, the hours of labor vary from 7 hours per day for the office employees to 10 or 12 hours for those at the stations and 10 for the employees in the workshops. In no case can the hours of labor exceed 11 per day. For the traveling employees, working periods are established with such hours of duty and of rest as are compatible with the exigencies of the service. In establishing these working periods a distinction is made between chief conductors (with a daily average of 8 hours and 21 minutes for the working days) and conductors (8 hours and 41 minutes), and between chief brakemen (8 hours and 24 minutes) and brakemen (8 hours and 38 minutes). The hours of service are not consecutive, and provision is made (1) to keep employees as short a time as possible away from their homes; (2) to secure to the train employees an interval of continuous rest of at least 7 hours in every 24, besides the necessary time for meals; (3) whenever the arrangement of the time-table of trains does not permit this interval of rest, to have the hours of excessive duty preceded and followed by long intervals of rest and of light service; (4) to insert between successive working periods days of complete rest and to have a number of employees in reserve at their homes who may be called upon when needed for extra duty or in cases of absence on account of sickness, furloughs, etc.

About the same rules obtain for the other two companies. The Mediterranean company contends that sufficient rest is allowed. According to the Sicilian company engineers and firemen have 2 days of rest after working periods of 7 to 10 days (broken, of course, by shorter rests for eating and sleeping), and the other traveling employees have for each working period 1 day of rest and sometimes 1 of reserve duty. In the workshops the hours of labor are 10 per day.

But the railroad employees strenuously contradict the truth of the statements of the companies. The engineers and firemen of the Adriatic system complain that they are obliged to work during 21 consecutive hours, and sometimes longer when there are delays in the trains, so

that the necessary hours of rest between one turn and another are curtailed. The engineers and firemen of the Mediterranean system complain that they have to work even up to 36 hours continuously. The League of Italian Railway Employees in one of its memorials affirms that the companies, in order to diminish expenses, are continually looking out for reductions in the number of employees, particularly of the lower grades, who, in consequence, are burdened with much more labor. Speaking of the working days of some classes of employees, they claim that in several stations the reduction of the number of employees has increased the hours of labor considerably beyond the normal limit, not infrequently up to 16, 17, 18, and 19 hours per day. As regards the traveling employees, cases are cited of working periods in which the hours of continuous labor are excessive, as well on account of the way the periods are arranged as through accidental causes, such as delays, reserve service, etc., which frequently disturb the regularity of the service and thereby cause the intervals of rest to become insufficient or to be entirely eliminated.

The locomotive employees make similar complaints, particularly in view of the fatiguing service which they perform. Besides the delays which cause a diminution of the hours of rest, the league reports that the working periods of the locomotive employees are more exacting than they were in the past, particularly for the three following reasons: (1) The suppression on the part of the Adriatic company of the days of rest, and the existence on the part of the Mediterranean of many days called days of rest, which in reality are not such; (2) the uninterrupted service of the personnel from the first to the last day of the working period, including the hours of reserve duty between one train and another, during which the personnel is always liable to be called to work; (3) the withdrawal of many reserve locomotives. From several working periods reported, it was ascertained that on certain days the hours of labor amounted to 12, 14, 16, 18, and 20, including the accessory work which the employees must perform.

It is difficult to harmonize these contradictory statements of the companies and of the railway employees. The declarations of the Government inspectors ought to be impartial by virtue of their office. According to these inspectors the labor in general can not be called excessive, but they agree in the statement that, for various reasons, the service may become extremely arduous during times of delay on the railways, due to defects in the machinery, accidents, the vintage season, etc. According to the statements of these inspectors, the labor in the stations varies from a minimum of 10 hours to a maximum of 14 hours per day; but in special cases this time is increased, and in some stations, which are affected by the system of gain sharing, the time of rest is ordinarily reduced to less than 5 consecutive hours. In these cases the employees do not obtain sufficient rest, and they are

therefore deprived of that clearness of mind and degree of vigor which is necessary for the security and regularity of the railway service. In some stations the labor is so hard that it would fatigue the most robust constitution.

As to the train crew, the inspectors acknowledge that the time schedules are arranged so as to leave the necessary hours of continuous rest, but in practice the time is extended until the hours of duty often become more or less excessive. This is due to time lost in preparatory work before the departure of the trains, and in the subsequent work after their arrival, such as turning over the rolling stock, etc.; the distance of the homes of employees from the stations, which is sometimes considerable, and the failure to provide a sufficient reserve force. Nearly all mention cases of time schedules of 14, 16, 17, 18, and 19 hours, although some of the inspectors consider them less of a hardship than appears at first sight, because they are a source of gain to the personnel. Certainly one can not but be unfavorably impressed when it is learned from one of the best inspectors that there are time schedules which allow conductors but 4 hours of rest. As to the locomotive employees, the average daily hours of labor vary, according to the inspectors, from 8 to 12 hours. So far as the higher limit is concerned, some inspectors have reported the hours to be from 15 to 20, while others report them at a lower figure. It is certain, however, that during periods of increased traffic, or when delays occur, there is not a sufficient continuous rest to permit the engineers and firemen to recuperate.

Reasoning from the results obtained by the investigation, which certainly have not thrown a very favorable light on the condition of the railway employees, the commission of inquiry, after having thoroughly examined the legislative enactments adopted in other countries, has presented to the Government the following suggestions relative to the hours of labor of railway employees: "The Government should modify article 10 of the regulations of railway labor (which has already been cited), establishing definitely the number of hours of continuous rest, which must not be less than 7, and making such provisions as may be necessary to prevent any evasions of the law whatever, for which purpose the laws and regulations of other States should be consulted and adopted." These provisions, which the commission wishes to see adopted in Italy, must regulate the distribution of labor so that it will not cause extreme fatigue by its excessive duration. The labor should, therefore, alternate from time to time so that the employees may be permitted to sufficiently recuperate. The proposed rules should be so framed that their application will preserve that flexibility which is necessary in the interest both of the personnel and of a well regulated service. Distinction must therefore be made between a continuous rest which can be had at home and a brief

rest which can be enjoyed away from home. The latter can be limited to the time necessary to recuperate for the time being the strength of the employees, provided that later a better rest at home will be allowed. The commission recommends the special study and the imitation of the laws now in force in Germany, France, England, and Switzerland. (a)

WAGES.

Of all matters relating to the condition of the railway employees that of wages is the most obscure and complicated. This is due to the following circumstances: According to the terms of the contracts by which the operation of the roads was given over by the State to the companies, the latter agreed to formulate an organic roll in which all

a Since the above was written the Government has embodied a new set of regulations in the decree of June 10, 1900, which is as follows:

Regulations to be observed by the railway companies in formulating the schedule of working turns, so as to insure the safe operation of the road.

I.—LOCOMOTIVE PERSONNEL.

ENGINEERS, FIREMEN.

ARTICLE 1. The hours of labor will be considered as:

(a) The time required for service on the train, computed from the moment when the employee is required to be present on duty, or at the station to take charge of the locomotive, until the time when he is permitted to leave, including rests of not more than one and one-half hours' duration;

(b) The time required to go on the train to a given locality to take service and to return;

(c) The time required for switching and making up the train;

(d) The fourth part of any time during which the personnel must remain on duty simply in reserve and during which they are not required to remain near the locomotive; and also the time during which the personnel must remain on the spot subject to call, the interval, however, during which the personnel is required to be present on the locomotive and in readiness to start to the relief of any train will be counted as a full period of labor;

(e) Any time whatever that is required for work about the locomotive.

ART. 2. The average duration of daily labor, determined as above, inclusive of the reserve days and the rests, as in following articles, must not exceed 10 hours.

ART. 3. In any one period of 24 hours the duration of labor, calculated according to article 1, must not exceed 13 hours.

When, however, the duration of labor exceeds 12 hours the intervals of rest preceding and following the period of labor must be at least 10 hours.

ART. 4. The personnel must be allowed a continuous rest of 8 hours' duration between each turn when at home and of 7 hours when away from home, utilizing in the latter case, when occasion arises, the time when simply in reserve or subject to call, as specified in article 1, (d).

The continuous rests must be separated by intervals (actual labor, presence on duty, brief rest during working hours, etc.) of not more than 17 hours, and the number in each working turn must not be less than the number of days over which the turn extends.

When it is not possible to accord 8 hours of rest at home the difference must be compensated for by a longer period of rest either before or after the deviation from this rule, and also by a brief rest during working hours, but the repose must not be less than 7 hours.

ART. 5. Among the continuous rests at home prescribed by the preceding article there must be at least 12 per year of the duration of 24 hours each, without prejudice to the annual vacation prescribed by the regulations.

the employees were to be classified, the roll showing their number and their respective remuneration. The companies have never complied with this obligation, because they wish to retain the liberty to augment or diminish the salaries and wages, anticipate or delay promotions, etc. The figures which are published in the transactions of the commission of inquiry are not sufficiently complete or satisfactory to give any exact idea of the mode in which railway employees are paid. Taking into consideration all the data in existence, the following points

II.—TRAIN PERSONNEL.

CONDUCTORS, GUARDS, BRAKEMEN.

ART. 6. The hours of labor will be considered as:

- (a) The time employed on the trip according to the train schedule;
- (b) The time required for accessory occupations before the departure and after the arrival of the train, counting the whole interval between the arrival of a train and the departure on a subsequent train when this interval is not longer than one hour;
- (c) One-fourth of the time during which the employee, while not en route, remains in reserve at the station subject to call when needed.

ART. 7. The average duration of daily labor as determined above must not exceed 11 hours per turn (including time in reserve and rest during working hours).

ART. 8. In any one period of 24 consecutive hours the duration of labor, computed as specified in article 6, must not exceed 15 hours.

When, however, the duration of labor exceeds 14 hours the intervals of rest between which the said period of labor is comprised must be at least 10 hours.

ART. 9. The personnel must be accorded a continuous rest of at least 8 hours' duration between each turn when at home, and of at least 7 hours when away from home.

The continuous rests must be separated by intervals (actual labor, presence on duty, rest during work, etc.) of not more than 17 hours, and the number in each working turn must not be less than the number of days over which the turn extends.

When, however, the time is interrupted by one or more periods of inaction of not less than 4 hours, the intervals between the periods of continuous rest may be prolonged, exceptionally, to 19 hours, in which case the rest following must be at least 10 hours long.

When it is not possible to accord the 8 hours' rest at home, the difference must be compensated for by a longer period of rest either before or after the deviation from this rule, and also by a brief rest during working hours. But the rest must be not less than 7 hours.

ART. 10. Among the continuous rests at home prescribed by the preceding article, there must be at least 12 per year of the duration of 24 hours each, without prejudice to the annual vacation prescribed by the regulations.

III.—STATION PERSONNEL.

CHIEF AND ASSISTANT STATION MASTERS, CLERKS AND ASSISTANTS, TELEGRAPHERS, YARD MASTERS, SWITCHMEN, BLOCK-SIGNAL MEN, FOREMEN OF LABORERS, GANG BOSSES, LABORERS.

ART. 11. For every period of 24 hours the duration of labor must be established according to the nature, intensity, and continuity of the normal labor of the personnel:

Up to 10 hours, in cases where the conditions of work are more severe or difficult.

Up to 14 hours, in cases of ordinary work, in which there must be included an intermission of 2 hours or 2 intermissions of 1 hour each.

In exceptional cases, up to 16 hours, in small stations, when there must be an intermission of 4 hours, either at one time or at smaller intervals of not less than 1 hour each.

To the provisions of this article will be added special regulations establishing the maximum time that the switchmen may be put to work in the signal cabins.

will be discussed: (1) Salaries and wages in general; (2) supplementary wages; (3) task wages; and (4) the gain-sharing system in the stations.

So far as salaries and wages in general are concerned, the table following shows the annual salaries and wages paid in the Adriatic system at two periods, namely, in 1885 and in 1896. The figures are given according to the groups of railways formerly known as the Southern and Calabro-Sicilian, the Roman, and the Upper Italian, by the combination of which the Adriatic system was created.

ART. 12. Whenever the day and night turns of service alternate, the personnel may not be assigned to continuous night service for more than 7 consecutive nights.

The change of turns is affected by prolonging the service of one day up to 16 hours, preceded or followed by a continuous rest of equal duration.

ART. 13. In every period of 24 hours there must be accorded the personnel a continuous rest of 7 or 8 hours, according as the homes of the personnel are in the vicinity of the station or not.

IV.—ROAD PERSONNEL.

GATE KEEPERS.

ART. 14. The regular hours of service are 14 in every 24.

ART. 15. The personnel must be accorded daily a continuous rest of a minimum duration of 7 hours, in addition to the time required for going to and from their homes.

ART. 16. In the case of track men, who also serve as gate keepers, the regular hours of service per day must not exceed 13 and the continuous rest must be not less than 8 hours, besides the time necessary to go to and from their homes.

FEMALE GATE KEEPERS.

ART. 17. The regular hours of service must not exceed 12 per day, with a continuous rest at night of not less than 9 hours, which time may be reduced to 8 hours during the summer season.

V.—GENERAL PROVISIONS.

ART. 18. The present regulations apply to the personnel expressly specified in the same, also when employed in other work not having a direct connection with the safety of the train service. They apply moreover to employees of other classes when assigned to the performance of the duties above specified.

ART. 19. In exceptional instances and when special circumstances require it in the case of the locomotive and train personnel when away from home and in the case of stations having but one administrative employee, a deviation from the minimum of 7 hours of continuous rest may be made, if the difference is compensated for by a longer rest either before or after the deviation from the rule, but it must not be below 6 hours.

In this case the working turns of the locomotive and train personnel and that of the stations to which this provision applies must be approved by the governmental inspector-general.

ART. 20. In case of inclement weather, accidents, delays, and other exceptional circumstances extraordinary services may be required of the personnel.

The personnel must not in any case quit the service on account of a prolongation of labor for such a cause.

ART. 21. The operating company must post a schedule and notice of the working turns in such a way that the personnel may take cognizance of it.

It must also transmit a copy of this schedule and notice to the district offices of the royal inspector-general of railways.

Rome, June 10, 1900.

ANNUAL SALARIES AND WAGES OF EACH CLASS OF EMPLOYEES OF ADRIATIC SYSTEM
BY FORMER GROUPS OF RAILWAYS, FOR YEARS ENDING JUNE 30, 1885, AND JUNE 30,
1896.

Classes of employees June 30, 1896.	Number of employees.	Salaries and wages.				Average increase.
		Year ending June 30, 1885.		Year ending June 30, 1896.		
		Total.	Average.	Total.	Average.	
SOUTHERN AND CALABRO-SICILIAN LINES.						
Administrative	1,768	\$599,772.40	\$339.24	\$926,118.99	\$523.82	\$184.58
Operating	1,493	264,982.05	177.48	365,044.45	244.50	67.02
Laboring	3,882	480,384.14	123.75	562,883.54	145.00	21.25
Females (a)						
Total	7,143	1,345,138.59	188.32	1,854,046.98	259.56	71.24
ROMAN LINES.						
Administrative	937	308,737.08	329.50	457,896.36	488.68	159.18
Operating	630	118,510.11	188.11	158,077.04	250.92	62.81
Laboring	1,842	246,170.34	133.64	288,500.07	156.62	22.98
Females (a)	109	3,196.08	29.32	4,460.62	40.92	11.60
Total	3,518	676,613.61	192.33	908,934.09	258.37	66.04
UPPER ITALIAN LINES.						
Administrative	1,684	503,163.74	298.79	741,379.39	440.25	141.46
Operating	2,043	364,385.54	178.36	490,506.22	240.09	61.73
Laboring	5,468	749,297.80	137.03	860,012.83	157.28	20.25
Females (a)	330	10,091.97	30.58	12,771.58	38.70	8.12
Total	9,525	1,626,939.05	170.81	2,104,670.02	220.96	50.15
TOTAL.						
Administrative	4,389	1,411,673.22	321.64	2,125,394.74	484.25	162.61
Operating	4,166	747,877.70	179.52	1,013,627.71	243.31	63.79
Laboring	11,192	1,475,852.28	131.87	1,711,396.44	152.91	21.04
Females (a)	439	13,288.05	30.27	17,232.20	39.25	8.98
Total	20,186	3,648,691.25	180.75	4,867,651.09	241.14	60.39

a Track watchers and toilet-room keepers.

The table does not include all the employees of the Adriatic system, but only those who came from the companies mentioned. It shows, however, the average earnings of railway employees. Those employees who form a part of the management and administration, such as station masters, etc., receive an average yearly salary of \$484.25; the clerical or operating force, including copyists, accountants, controllers, ticket distributors, telegraphers, etc., as well as conductors and locomotive engineers, receive an average of \$243.31; employees belonging to the class of laborers such as porters, switchmen, brakemen, gate keepers, etc., receive an average of \$152.91, and females receive an average compensation of \$39.25 per year. It may be stated that the females are employed either in guarding the tracks along the line or in the toilet rooms. They are mostly married women whose husbands are employed as laborers on the railways, and they are granted, besides their wages, the use of a small house free of rent, with a small piece of land on which to grow vegetables.

It may be stated here that the difference in average wages paid to the employees of the several systems is not due to locality. The

employees of the Italian railways are all paid in the matter in what locality they belong. The difference that, in order to create the administrative personnel system, nearly the whole administrative personnel and Calabro-Sicilian, a part of the Roman, and a grade employees of the Upper Italian roads have been

With regard to the Sicilian system, the minimum paid to the principal classes of employees, according to existing at the time of the cession, June 30, 1885, the graduated table afterwards reported by the commission of 1887, are shown in the following table:

MINIMUM SALARIES AND WAGES PAID EMPLOYEES OF THE SICILIAN SYSTEM, JUNE 30, 1885, AND MARCH 18, 1887.

Occupation.	Minimum
	June 30, 1885.
Chief director	\$32.81 per month
Technical director	27.99 "
Chief managers	27.02 "
Managers	19.30 "
Station masters	21.23 "
Clerical help	.39 per day
Station gate keepers	.39 "
Yard masters	.58 "
Yard men	.39 "
Switchmen	.35 "
Underservants (a)	.39 "
Laborers	.31 "

a The underservants (*inservienti*) attend gates and perform messenger and administrative employees.

Following are given the exact amounts of wages paid to locomotive engineers and firemen, the two most important classes of employees in the railway personnel of the Mediterranean system, during the period 1886-87 to 1893-94:

AVERAGE ANNUAL WAGES PAID TO LOCOMOTIVE ENGINEERS BY THE MEDITERRANEAN SYSTEM, 1886-87 to 1893-94.

Year.	Fixed wages.	Premiums	
		Economical use of material and time gained.	Distance run.
1886-87	\$326.17	\$120.63	\$52.11
1887-88	321.35	128.35	52.11
1888-89	320.38	111.94	52.11
1889-90	318.45	110.01	51.15
1890-91	318.45	107.12	51.15
1891-92	315.56	109.05	51.15
1892-93	314.59	113.87	53.08
1893-94	312.66	112.91	52.11

AVERAGE ANNUAL WAGES PAID TO FIREMEN BY THE MEDITERRANEAN SYSTEM, 1886-87
TO 1893-94.

Year.	Fixed wages.	Premiums (distance run and others.)	Total wages and premium.
1886-87.....	\$197.83	\$166.95	\$364.78
1887-88.....	200.72	151.51	352.23
1888-89.....	200.72	150.54	351.26
1889-90.....	201.69	143.79	345.48
1890-91.....	202.65	136.07	338.72
1891-92.....	199.76	136.07	335.83
1892-93.....	201.69	146.68	348.37
1893-94.....	200.72	141.86	342.58

As will be seen, there is in both classes a tendency toward a reduction of wages, due to the system of economy inaugurated by the company and also to the unprosperous condition of Italy, which forces many workingmen to be satisfied with much lower wages than they formerly received. But, taken all in all, it can not be said that the railway employees are poorly paid as compared with employees in other industries. To demonstrate this it will be sufficient to examine the following data showing the wages paid in 1897 in the principal groups of workers in Italy:

WAGES PAID IN CERTAIN LOCALITIES AND OCCUPATIONS IN 1897.

Locality.	Occupation.	Sex.	Daily wages.
Sardinia.....	Miners.....	Male.....	\$0.52 to \$0.75
Sardinia.....	Masons.....	Male.....	.59
Sardinia.....	Teamsters.....	Male.....	.41
Sicily.....	Miners in sulphur mines.....	Male.....	.48 to .60
Romagna.....	Miners in sulphur mines.....	Male.....	.41
Turin.....	Joiners.....	Male.....	.56
Turin.....	Horseshoers.....	Male.....	.62
Turin.....	Laborers.....	Male.....	.42
Genoa.....	Blacksmiths.....	Male.....	.77
Genoa.....	Boilermakers.....	Male.....	.87
Genoa.....	Casters or founders (<i>fonditori</i>).....	Male.....	.97
Genoa.....	Common and ordinary laborers.....	Male.....	.50
Naples.....	Blacksmiths.....	Male.....	.94
Naples.....	Boilermakers.....	Male.....	.95
Naples.....	Casters or founders (<i>fonditori</i>).....	Male.....	.91
Naples.....	Common or ordinary laborers.....	Male.....	.44
Biella.....	Dyers, wool.....	Male.....	.63
Biella.....	Carders, wool.....	Male.....	.56
Biella.....	Spinners, wool.....	Male.....	.77
Biella.....	Winders, wool.....	Female.....	.59
Biella.....	Weavers, wool.....	Female.....	.64
Biella.....	Burlers (<i>pinzatrici</i>).....	Female.....	.59

The employees of railways, besides being better paid than workingmen in other industries, have also a more continuous and secure remuneration, since they are employed during the whole year, and in addition to their fixed wages have other allowances which contribute to augment their total earnings.

SUPPLEMENTARY WAGES.

There are many classes of supplementary wages. Following is the classification adopted by the Mediterranean system:

SUPPLEMENTARY WAGES WHICH ARE OPTIONAL IN CHARACTER.—
Extra compensation paid to employees on the clerical force; premiums

granted for meritorious service, for promptly turning in lost or forgotten objects, for acts tending to prevent accidents or delays in the running of trains, for discovering abuses in the use of freight cars, for proving violations of the railway regulations, for lubricating and repairing railway stock, for economy in the use of supplies in the stations, and to the warehouse employees for regularity in the distribution of fuel; gratuities for telegraphic service; compensation for extraordinary labor; warm drinks.

SUPPLEMENTARY WAGES PAID ON ACCOUNT OF PECULIAR CONDITIONS OF TIME AND LOCALITY.—Indemnity on account of malaria, compulsory sojourn away from home, isolation, wagon and horseback service, transfers, night service; increased pay on account of greater cost of necessities of life, employment in thickly settled localities, confining service, for wood during the winter season.

SUPPLEMENTARY WAGES DEPENDING UPON SERVICES PERFORMED.—Indemnity corresponding to hours of labor, compensation for labor which prevents an uninterrupted rest of at least 6 hours, for lodgings, for distance run, for tunnel service, for services as substitutes, for labor of a character superior to that pertaining to the grade of the employee, for the services of some classes of employees such as storekeepers, gate keepers, and switchmen; premium for economy in the use of fuel and lubricating material, for time gained, for keeping locomotive in good condition, for careful use of materials, for careful handling of freight; compensation for helping at the turntables or side tracks, for care in the use and preservation of tools.

The Sicilian company allows its employees the following supplementary wages: Compensation for increased labor and rewards for zeal and diligence on the part of the employees in the fulfillment of their respective functions; gratuities for such acts on the part of the employees as may merit special mention whether performed directly or indirectly in the line of service.

The sums distributed on these grounds among the employees from July 1, 1885, to June 30, 1896, amounted to 351,253.36 lire (\$67,791.90).

In the prepayment of wages to employees to meet unforeseen expenses, either of the family or individual, such as expenses of moving, sickness, taxes, etc., the company during the above-mentioned period has advanced wage payments amounting to 249,314.69 lire (\$48,117.74).

The traveling employees are compensated for distance run and for nights necessarily spent away from their homes. For example, a conductor who has run 4,750 kilometers (2,951.51 miles)—an average which nearly all of them surpass—receives, outside of his regular monthly wages, a total indemnity for distance run amounting to 32.75 lire (\$6.32).

Premiums are given locomotive engineers and firemen for economy in the use of fuel and lubricating materials. In order to cover this allowance a monthly reward of 80 lire (\$15.44) for locomotive engineers and 40 lire (\$7.72) for firemen, which may not exceed 130 lire (\$25.09) for the former and 65 lire (\$12.55) for the latter, is given.

Premiums are also given to locomotive engineers and firemen who have been particularly attentive in keeping their locomotives in good condition during the year and who have never caused delays in the train schedules. For these a premium has been set aside amounting to 6,580 lire (\$1,269.94), distributed as follows:

Locomotive engineers	4 premiums of 140 lire (\$27.02)
Locomotive engineers	10 premiums of 120 lire (\$23.16)
Locomotive engineers	20 premiums of 80 lire (\$15.44)
Locomotive engineers	26 premiums of 50 lire (\$ 9.65)
Firemen.....	28 premiums of 40 lire (\$ 7.72)
Firemen.....	32 premiums of 25 lire (\$4.82)

Semiannual premiums are granted for meritorious services on the part of the station employees. Premiums are also given to the station employees for the careful use of the personal property in their care and for economy in the use of supplies.

As indemnity on account of malaria, the three classes of employees (administrative, operating, and laboring) who live in the more malarial zone receive an average annual extra compensation of 228 lire (\$44); those residing in the less malarial zone receive 132 lire (\$25.48). As to the traveling personnel, the daily extra compensation of controllers, locomotive engineers, chief conductors, and conductors during the summer months amounts to 0.45, 0.40, and 0.35 lira (8½, 7½, and 6½ cents), according to the location of their homes, and of brakemen and firemen to 0.35, 0.30, and 0.25 lira (6½, 5½, and 4½ cents). Besides this the company furnishes at an annual expense of 10,000 lire (\$1,930), free of cost to all who apply, the fluid extract of lemon especially prepared for the company, this extract having been recognized as a superior remedy against malarial infection.

During the period from 1885 to 1896 there was distributed as assistance to the employees in cases of sickness 121,981.90 lire (\$23,542.51).

As assistance given to families of deceased employees, there was expended during the above-mentioned period a total of 88,677.20 lire (\$17,114.70), or an average of more than 500 lire (\$96.50) per family for the employees in the administrative department, 300 lire (\$57.90) per family for operating employees, and 200 lire (\$38.60) per family for the laboring classes.

The company allows a final indemnity to employees when they leave the service, the total sum granted for such purposes up to the present amounting to 253,786.86 lire (\$48,980.86). At an average, this represents an indemnity of 1,500 lire (\$289.50) for each administrative

employee, 830 lire (\$160.19) for each operating employee, and about 600 lire (\$115.80) for employees performing ordinary labor.

A premium is given for keeping the road in good condition. This is allowed to the employees detailed to look after the condition of the road and roadbed. By this means a double purpose is secured—that of increasing the pay of supervisors, gang bosses, and track walkers, and of securing increased activity on their part in looking after such minor work along the line as cleaning and clearing drains, removing weeds, piling stones, taking care of embankments, trimming hedges, etc. For such purposes the following scale of compensations was established: Six lire (\$1.16) per month for supervisors, 3 lire (\$0.58) for gang bosses, and 2 lire (\$0.39) for track walkers. During the period from 1885 to 1896 the sum of 150,297.40 lire (\$29,007.40) was expended for this purpose.

Premiums for lubricating and repairing cars are also granted. Through these premiums, for which 8,179 lire (\$1,578.55) were distributed during the years 1894 and 1895, the purpose was accomplished of making the employees engaged in lubricating more economical in the use of the material. It also made them more careful in their work, and thus diminished the number of hot boxes.

Recently premiums were given for good service on the part of the lamplighters and laborers attached to the lighting department. This new reward secured to the employees premiums varying from 5 to 9 lire (\$0.97 to \$1.74) per month.

A residence indemnity is granted to the lower grade employees in the main stations of the system, and, in general, to those obliged to live in the great centers, where the cost of living is high.

So far as the Adriatic company is concerned it is not necessary to repeat the enumeration of the various supplementary wage items which it allows to its employees, especially as they are similar to those allowed by the other companies. Instead of this the importance of all these supplementary allowances, as a whole, as compared with the regular wages, will be considered. Thus it can be determined whether supplementary wages increase the earnings in a marked degree or not. The two tables following will show the amounts of supplementary wages during the two periods from 1878 to 1884, and from July 1, 1885, to June 30, 1896. During the first period the railways were operated partly by the State and partly by private companies; during the second period the railways were all operated by the Adriatic company. From these tables it will be seen whether the condition of railway employees has improved or otherwise during recent years. The two tables follow.

TOTAL FIXED AND SUPPLEMENTARY EARNINGS OF EMPLOYEES OF THE ADRIATIC SYSTEM, COMPARED, 1878 TO 1884.

Year.	Salaries, wages, and fixed allowances.	Supplementary wages, indemnities, premiums, etc.	Per cent supplementary wages, etc., of salaries, wages, and fixed allowances.
1878.....	\$9, 159, 342. 08	\$1, 548, 106. 27	16.8
1879.....	9, 258, 572. 07	1, 596, 326. 74	17.3
1880.....	9, 908, 587. 38	1, 782, 876. 68	17.8
1881.....	10, 387, 109. 07	1, 944, 427. 52	18.7
1882.....	11, 034, 259. 88	2, 067, 424. 31	18.7
1883.....	11, 773, 887. 41	2, 411, 347. 79	20.5
1884.....	12, 444, 852. 88	2, 566, 448. 19	20.6
Average.....	10, 566, 658. 68	1, 990, 993. 93	18.84

TOTAL FIXED AND SUPPLEMENTARY EARNINGS OF EMPLOYEES OF THE ADRIATIC SYSTEM, COMPARED, JULY 1, 1885, TO JUNE 30, 1896.

Year.	Salaries, wages, and fixed allowances.	Supplementary wages, indemnities, premiums, etc.	Per cent supplementary wages, etc., of salaries, wages, and fixed allowances.
1885 (a).....	\$2, 858, 468. 77	\$607, 424. 65	21.2
1886.....	6, 305, 310. 00	1, 510, 752. 28	23.9
1887.....	6, 549, 455. 00	1, 746, 650. 00	26.7
1888.....	7, 078, 685. 51	1, 840, 856. 04	26.0
1889.....	7, 535, 129. 74	1, 878, 799. 22	24.9
1890.....	7, 777, 668. 40	2, 007, 694. 08	25.8
1891.....	7, 842, 287. 31	2, 020, 787. 01	25.8
1892.....	7, 445, 521. 19	1, 857, 775. 15	25.1
1893.....	7, 464, 925. 22	1, 778, 300. 84	23.8
1894.....	7, 252, 298. 66	1, 897, 302. 33	26.2
1895.....	7, 200, 246. 75	1, 909, 256. 94	26.5
1896 (b).....	8, 603, 656. 24	945, 181. 60	11.0
Average.....	7, 173, 968. 44	1, 818, 262. 65	25.35

a For the last 6 months.

b For the first 6 months.

From these tables it will be seen that the percentage of supplementary wages of the fixed wages has increased so that while before 1885 the average percentage was 18.84, in the period from 1885 to 1896 the average had risen to 25.35 per cent.

It can not be contended that the increase of the supplementary wages is due to contemporaneous diminution of the fixed wages, because the average of the latter has increased from 929.26 lire (\$179.35) to 1,015.73 lire (\$196.04). This shows that the supplementary wages have increased absolutely as well as relatively.

Before closing this discussion it seems opportune to make a comparison between the various companies, so far as the supplementary wages are concerned. As it is impossible to consider all the different classes, only indemnities for malaria are shown. Unfortunately, the greater part of Italy is infected with malaria. All three companies have, therefore, fixed upon an indemnity to their employees whenever they are obliged to live in malarial regions.

In the following table are indicated the annual indemnities paid to the various classes of the employees in the more malarial as well as in the less malarial zones:

ANNUAL ALLOWANCES FOR LIVING IN THE MORE AND LESS MALARIAL DISTRICTS.

Class of employees.	Adriatic system.		Mediterranean system.		Sicilian system.	
	More malarial.	Less malarial.	More malarial.	Less malarial.	More malarial.	Less malarial.
First	\$44.58	\$10.42	\$33.97	\$6.95	\$43.43	\$10.42
Second	29.53	6.95	23.16	4.63	27.21	6.95
Third	20.84	4.63	16.21	3.47	19.69	4.63
Fourth	13.90	3.47	9.26	2.32	13.90	3.47

THE TASK WAGE SYSTEM.

The task wage system has been extensively adopted by the three companies, but the Sicilian company does not apply it to the station service and uses it more rarely than the other two companies, particularly the Adriatic company, which, owing to its very active industrial traffic, has seen proper to give it a greater development, and has applied it to such branches of the service as the supervision and labor of road construction and maintenance, which the Mediterranean company after a trial has abandoned.

The task wage system is applied to the following branches of service:

FREIGHT HANDLING ON SLOW FREIGHT TRAINS.—The employees engaged in this class of labor are credited with a fixed amount for a certain unit of labor. At the end of the month the amounts so credited for labor performed are summed up; from this total are then deducted the amounts set down as the regular and supplementary wages of the permanent force (not including wages of temporary employees), the cost of the yard service, expenditures due to losses or damages, and finally a fixed amount for wear and repair of tools. If after the deduction of the amount of these items there remains a surplus, a portion of it, usually varying from 20 to 35 per cent, is distributed semiannually among the employees. The distribution of this part of the surplus is based upon the quantity and quality of the labor performed by each participant. This basis of distribution is not made known to the employees. They know the value of each unit and the number of units of labor performed, but are ignorant of the proportion of the surplus which each will receive, which amount should really be regarded as a gratuity rather than a participation in the profits.

WORK OF GENERAL INSPECTION OF THE ROADWAY.—The gain in this case is computed according to the days of labor saved as compared with the number considered necessary and just. The calculation is

made on the basis that each employee must examine daily a certain length of track. An amount equal to a part of the value of the time thus saved is distributed among the employees.

LABOR IN THE WORKSHOPS.—The gain by the task wage system in this branch of work consists of the difference between the price of a piece of work as agreed upon between the company and the workingmen and the actual cost of the labor necessary to execute it. If this difference should be against the workingmen, which occurs only in exceptional cases, then the participants in the task must reimburse the company to that extent. This reimbursement may, however, be remitted if it can be shown that the deficit was due to lack of skill and not to negligence.

Besides this task wage depending upon the cost of a piece of work there is still another, called a premium, which depends upon the time required to perform the task. This premium increases the wages of each participant (by from one-tenth to one-fifth in the Adriatic system) if the work is completed before a stipulated time.

LABOR IN THE COAL DEPOTS.—Task wages were also introduced in the coal depots, the premium consisting of a uniform allowance for each ton handled above a fixed number of metric tons established as a normal day's work. The allowance of this premium is optional.

SUPERVISION AND LABOR OF ROAD CONSTRUCTION AND MAINTENANCE.—In the first division of the Mediterranean system the personnel formerly had a right to as many times 750 lire (\$144.75) as there were less employees in each class than were established by the organic roll.

ECONOMY IN THE USE OF STATION AND OFFICE SUPPLIES.—To each office or station an annual allowance is made for certain objects of regular consumption and for stationery. The personnel is entitled to 50 per cent of the amount saved over and above this allowance.

OFFICE WORK.—In the auditing division of the Adriatic system the work is done outside the normal working hours and even at the homes of the employees. The compensation for this work is agreed upon from time to time between the division chief and the task worker and must not exceed a certain sum allowed semiannually for this purpose exclusive of the regular salary allowance from one semiannual period to another.

In the Mediterranean system this work is performed outside the regular hours and is paid for according to an established tariff of remuneration. The work is not obligatory.

The work of copying contracts and tariffs in the Mediterranean system is paid for according to a fixed scale and is optional.

In order to give a correct idea of the results of the task wage system, there is shown in the following table, for a series of years, the total task-system wages paid to office employees in 5 Italian cities.

TOTAL TASK WAGES PAID TO RAILWAY OFFICE EMPLOYEES IN 5 ITALIAN CITIES,
1885 TO 1895.

Year.	Turin.	Naples.	Milan.	Siena.	Rivarolo.	Total.
1885	\$55,402.10		\$5,700.17			\$61,102.27
1886	117,275.97		13,156.63	\$4,587.25		135,019.85
1887	128,591.89	\$42,625.24	14,798.28	11,109.88		197,125.29
1888	143,942.28	46,923.50	17,126.62	15,603.90		223,596.30
1889	153,221.18	49,638.25	17,456.78	17,166.72		237,482.93
1890	152,469.84	54,210.15	16,841.94	19,991.97		243,513.90
1891	147,718.55	55,890.37	16,550.14	21,880.04	\$1,931.75	243,980.85
1892	150,730.81	60,410.19	17,321.72	22,584.27	14,841.93	265,888.92
1893	136,149.15	64,059.29	17,914.49	20,886.58	23,029.41	262,039.02
1894	140,011.96	68,042.15	19,365.19	27,711.98	24,354.68	279,485.96
1895	154,278.60	76,693.74	19,785.99	31,203.67	23,053.09	304,015.09
Total	1,479,792.33	517,492.88	176,017.95	192,736.36	87,210.86	2,453,250.38

It may be stated in this connection that the Mediterranean system has, through the adoption of the task wage system, effected a saving of 1,638,172 lire (\$316,167.20) in yard service and ordinary labor in the stations alone. Of this sum 415,143 lire (\$80,122.60) was distributed among the employees as their share.

Likewise, in consequence of the adoption of this task wage system by the Mediterranean company, the following premiums were paid during 3 fiscal years, 1893-94 to 1895-96, to the employees participating in the profits arising from the economic use of materials of consumption:

PREMIUMS PAID TO EMPLOYEES OF MEDITERRANEAN SYSTEM OUT OF SAVINGS FROM
ECONOMIC USE OF MATERIALS, 1893-94 TO 1895-96.

Year.	Amount allotted.	Amount consumed.	Premium to personnel.
1893-94	\$706,786.37	\$669,011.74	\$34,747.71
1894-95	612,031.77	552,361.98	29,898.09
1895-96	585,804.10	533,651.68	26,076.27
Total	1,904,622.24	1,755,025.40	90,722.07

The results of the task wage system seem, therefore, to be sufficiently satisfactory, as well for the company, which was enabled to save considerable amounts of money on the current expenses, as for the employees, who, through the generosity of the company, were enabled to participate in these savings. That the task wage system is approved by a great majority of the employees of the three great systems was evident to the commission of inquiry at Turin when it interrogated the employees, who presented themselves in great numbers. It seems that one of the employees began to make a speech, not against the abuses and effects of the task wage system, but against task labor itself as a means of earning wages. He was interrupted by such manifest signs of disapproval that he was obliged to admit that most of his companions did not share his hatred of the task wage system.

THE SYSTEM OF GAIN SHARING IN THE STATIONS.

Closely related to the task wage system is that of gain sharing in the stations. This system was introduced in Italy in 1891 by the Adriatic company, which took as a model, with some modifications, the plan of the Austrian Südbahn. This system had been followed there for a long time. The example of the Adriatic company was followed by the Mediterranean and Sicilian companies. The latter, however, after having introduced it as an experiment in its stations at Catania and at Caltagirone, discarded it, for the reason, as it claimed, that the system did not yield good results. The Adriatic and Mediterranean companies, however, retained and greatly developed the system, especially the Adriatic company, so that on October 1, 1898, there were 461 stations operating under the gain-sharing system. Of this number 324 belonged to the Adriatic and 137 to the Mediterranean company.

The Adriatic, which was the first company to introduce this system, proposed to solve the following problem:

Leaving untouched the fixed and supplementary wages and excluding from the new arrangement the employees whose services consist of safeguarding the road—

1. How to reduce the station personnel in the administrative branches—that is, in the freight, baggage, ticket, and telegraph offices—as well as in the clerical and laboring force, (a) supplying the difference in the number of the first class by a less detailed and less specialized division of labor, and obtaining thereby a greater intensity of work; and (b) in the second class securing greater intensity of labor by a reduction in the force, and, whenever this force should not be sufficient to supply the needs of the station, authorizing the station master to employ temporary labor, from day to day, as may be necessary, this temporary help, according to the plans of the company, being intended to replace gradually the permanent laboring force, such as porters, laborers, etc.

2. How to compensate the two classes of employees by an equitable division of the savings realized through the increased intensity of labor caused by the new arrangement.

In what manner has the Adriatic company solved the first problem—that is, how could the number of station employees be reduced? Here is the method followed by the company, as stated by the latter:

The labor in the stations is well defined. First of all, it is necessary to closely distinguish, in the case of the station personnel, between hours of presence in service and hours of labor. In the small stations there is hardly any labor, and the service is mostly reduced to the necessity of being present at the time when trains pass; in many other stations the passenger and freight service would require less than one man's labor. In these cases the only criterion on which to base an estimate of the force necessary to perform the labor called for consists of seeing to it that the hours of uninterrupted rest established by the

regulations are strictly observed; but in the stations which have certain fixed traffic the basis on which to establish the numerical laboring force is different. In each of these stations one can daily know the number and kind of tickets distributed; the number of pieces of baggage handled; the amount of freight sent off, received, or in transit; the number of trains made up, broken up, or in transit; the number of cars handled; the quantity of freight handled; the number of telegrams received and sent; the number of letters, accounts, and statistical documents emanating from the superior offices, etc. All these operations constitute the sum total of the labor performed at the stations.

On this information is determined what the numerical strength of the personnel at the stations should be—that is, a careful calculation of the number of operations effectively completed and of the time necessary to perform each of them serves as the basis of the computation. In this manner all grounds for the discussion regarding the numerical sufficiency of the station personnel are eliminated, particularly as the employees themselves must make out monthly statements of the labor actually performed in order to establish the proportionate share of the premiums to which each one is individually entitled. By this means it can be clearly decided whether or not the number of employees is adequate for the amount of labor to be performed.

The units of time necessary for each station operation were established in accordance with the following estimates:

Issuing an ordinary ticket on which there is no special registration or price computation	1 minute
Issuing a ticket at reduced price, a tourist's ticket, etc.	10 minutes
Weighing and checking and taxing a piece of baggage	3 minutes
One shipping of goods by fast freight	10 minutes
One shipping of goods by slow freight	15 minutes
Clerical work for a train in transit	10 minutes
Clerical work for a train made up or broken up	25 minutes
Clerical work for each car arriving or departing	6 minutes
Transmission or receipt of a telegram	6 minutes

For other clerical work, correspondence, etc., there is allowed for each station over and above the units indicated a certain length of time equal in value to 20 per cent of the total daily labor of the station. On account of this additional allowance it becomes necessary to engage a greater number of employees than would be strictly necessary for the exigencies of the service. At the same time it was decided that employees occupied in clerical work—issuing tickets, freight service, telegraph service, etc.—should be held to a maximum of 8 hours of daily labor, computed in the manner above indicated.

So far as the arrangement in the stations of the Mediterranean system is concerned it will be sufficient to mention the following only: To determine the number of persons necessary for clerical work, the handling of trains, and the telegraph service (employees, clerks, and assistants), the calculation is based upon the actual labor performed in each station, which, by means of statistical data already referred to, is perfectly well known. In the same manner as in the Adriatic company the units of time necessary for each of the above-mentioned operations were established, the time necessary for supplementary clerical work, etc., being included in the units. When this is done the re-

number of employees is established, with the reservation that no matter what number of hours an employee is present in service he can not have more than 8 hours of actual labor per day. Provision is also made on special occasions for supplementary allowances of time. As regards the employees engaged in the supervision of the handling of merchandise—that is, assistants, depot keepers, etc.—it was impossible to find an absolute basis. The company was therefore forced to adapt itself to local conditions.

Having in this manner fixed upon the number of laborers and porters sufficient for the needs of the station in times of minimum labor, the station master is allowed to provide for increasing needs by engaging temporary or extra help, which, in case of the absence of regular employees or exceptionally increased labor, may also be used for clerical work, provided that they are not used in the handling of trains and in telegraph service, or intrusted with labor which implies the handling of money or which is such as to put them in direct contact with the public.

So far as the personnel employed in yard service is concerned, such as yard masters, couplers, switchmen, etc., the arrangement existing before the gain-sharing system was adopted has been retained.

Comparing the workings of the Mediterranean company with those of the Adriatic some little difference will be found, although not detailed above; for instance, while the first does not allow the employment of temporary help for clerical labor save in exceptional cases, the second allows the personnel to be increased by as many temporary helpers as may be desired as well for manual as for clerical work, but this is of very little importance.

The system requires, therefore, the establishing of a compensation of a uniform fixed allowance for each operation, on the basis of which there is prepared for the station a monthly balance sheet of the service on the gain-sharing system, and this determines the premiums due the employees participating.

The balance sheet is compiled as follows: The station places on its credit side the amount (as above calculated) for the operations of handling baggage and freight and for yard labor, and the fixed allowances made for policing the station, night watchmen, etc.

The debit side consists of the amount for yard labor performed other with a locomotive or otherwise, for the wages of the permanent laborers who are entitled to participate, for all temporary help employed during the month, and for the expenses of the repair of tools. The excess of credits over debits then represents the amount to be divided between the company and the permanent employees.

The following is the balance sheet of the station of Codogno, in the Adriatic system, for the month of November, 1895, and will serve as an example of the method of determining the amount to be distributed in premiums.

STATION BALANCE SHEET FOR DETERMINING BASIS OF DISTRIBUTION OF PREMIUMS
TO PERMANENT EMPLOYEES FOR CODOGNO, NOVEMBER, 1895.

Items.	Number of units.	Price per unit.	Amount.
TO THE CREDIT OF THE STATION.			
General freight service:			
Baggage sent out, received, or in transit	558 pieces	\$0.019300	\$10.77
Dogs	6 dogs	.019300	.12
Fast freight sent out, received, or in transit	843.811 tons	.087544	73.87
Slow freight sent out or received	1,351.861 tons	.087544	118.35
Transferring goods, general merchandise	3,117 cars	.009650	30.08
Transferring goods, carload lots	60 cars	.009650	.58
Shipping for railroad service sent out, received, or in transit	30.313 tons	.052527	1.59
Loading and unloading long timber on coupled cars	1 car	.193000	.19
Loading and unloading road locomotives for army	55 locomotives	.057900	3.18
Total			238.73
Yard service:			
Passenger and freight cars charged to station and freight cars in transit	4,450 cars	.038600	171.77
Fixed allowances and sundry receipts:			
Policing of station			19.30
Service of night watch			11.58
Substitute labor on trains—(days' work)			4.03
Premium for regularity in yard service			7.95
Compensation for extra labor			3.01
Compensation for voluntary substitution			5.02
Total			50.89
Grand total			461.39
TO THE DEBIT OF THE STATION.			
Expenses:			
Yard labor with locomotives	199½ hours	.579000	115.51
Six participating employees, 156 days			60.16
Temporary labor	289 days	.289500	77.87
Total			253.54
Excess of credit over debit			207.85
Grand total			461.39

The premium which then falls to the share of the permanent employees is 60 per cent of the excess of the credits over the debits after deducting the premium for regularity of service and extra labor. A part of this gain, which varies from 80 to 90 per cent of the 60 per cent, is immediately divided among the participating employees; the remaining portion of the 60 per cent is deposited in the postal savings bank and constitutes a reserve fund with which to cover contingent expenses, as for thefts, goods damaged, etc. At the end of the year the amount of these savings left over, increased by part of the income derived from operations of loading and unloading which the stations undertake for private parties, is divided exclusively among the participating employees.

A committee of the employees of the station (including at least one of the laborers) is appointed, which manages the reserve fund.

The two brief statements which follow give, first, the distribution of the surplus among the employees, the company, and the reserve fund, and second, the movement of the reserve fund for the station of Codogno for November, 1895.

DISTRIBUTION OF SURPLUS TO EMPLOYEES, COMPANY, AND RESERVE FUND FOR
STATION OF CODOGNO, NOVEMBER, 1895.

Division of excess of credit over debit.	Amount.
Excess of credit over debit.....	\$207.85
Deduct premium for regularity of service and extra labor.....	10.96
Remainder to be divided between employees and company.....	196.89
Part (40 per cent) refunded to company.....	78.76
Part (60 per cent) apportioned as employees' share.....	118.13
Part of employees' share (10 per cent) placed in reserve fund.....	11.81
Part of employees' share (90 per cent) paid immediately to employees.....	106.32

Following is a statement of the movement of the reserve fund of the station of Codogno for November, 1895:

Income from loading and unloading performed at the charge of patrons.

Balance from preceding month.....	\$.....
Received during month.....	
Total.....	
To be deducted, paid to employees transferred.....	
Balance.....	

Retained from the gains which were allotted to the employees who participated in the gain-sharing system.

Remainder from preceding month.....	\$44.80
Retention of 10 per cent of gains of the month.....	11.81
Retained from employees on account of indebtedness to the railway company.....	
Total.....	56.61

To be deducted:

Share paid to employees transferred.....	
Indemnities paid for transfer of employees.....	5.96
Rectification of error.....	
Total.....	5.96
Remainder.....	50.65

The premium, which is determined monthly and which amounted, for instance, in the station of Codogno to 550.88 lire (\$106.32) in November, 1895, must be divided among the individual employees who participate in the gain-sharing system.

This division could not be made in equal shares among the whole personnel without committing an injustice to the most capable and most active, neither could it be made in proportion to the regular pay of each individual, because the class of employees which has the smallest pay and which lends the most efficacious aid by its labor to accomplish the savings would suffer most.

The division, therefore, has been based on two criteria: One which keeps account of the capabilities of all of the employees and establishes various groups based on this record, different quotas being assigned to each of the various groups thus established; the other,

which keeps account of the number of days at work. In this manner the yardmen and laborers may have in many cases quotas of premiums assigned to them which are equal to those of higher employees. The difference in premiums among the employees of the same class is always according to the number of days at work. The averages of monthly maximum premiums and of all premiums paid to certain classes of the employees at all stations of the Adriatic system from 1891 to 1895, inclusive, are as follows:

AVERAGE MONTHLY PREMIUMS PAID IN CERTAIN OCCUPATIONS IN THE ADRIATIC SYSTEM, 1891 TO 1895.

Occupations.	Average of maximum monthly premiums.	Average of all monthly premiums.
Station masters.....	\$11.77	\$7.91
Managers.....	7.72	5.32
Clerks.....	5.79	3.86
Gate keepers.....	3.28	2.12
Yardmen.....	4.05	2.70
Switchmen.....	4.05	2.70
Laborers.....	4.05	2.70

In order, however, to better explain the workings of the system the method by which the premium of 550.88 lire (\$106.32) before mentioned was distributed to the employees of the station of Codogno is given as an example.

PREMIUMS PAID TO INDIVIDUAL EMPLOYEES AT THE STATION OF CODOGNO, NOVEMBER, 1895.

Employee number.	Occupation.	Days present.	Premium.			Premium for regularity in service.	Premium for extra labor.	Total.
			Number of shares.	Value of one share.	Total.			
1	Station master.....	31	2.50	\$5.3654	\$13.42	.....	.....	\$13.42
2	Station master.....	31	1.50	5.3654	8.05	.....	\$0.89	8.94
3	Manager.....	31	1.50	5.3654	8.05	.....	.....	8.05
4	Clerk.....	27	1.25	5.3654	5.84	.....	.....	5.84
5	Clerk.....	29	(a)	5.3654	b3.42	.....	.....	3.42
6	Clerk.....	31	(a)	5.3654	b3.65	.....	.....	3.65
7	Clerk.....	31	(a)	5.3654	b3.65	.....	.78	4.43
8	Clerk.....	31	(a)	5.3654	b3.65	.....	.....	3.65
9	Clerk.....	23	(a)	5.3654	b2.71	.....	.....	2.71
10	Clerk.....	27	(a)	5.3654	b3.18	.....	.....	3.18
11	Gate keeper.....	31	.75	5.3654	4.02	.....	.....	4.02
12	Gate keeper.....	31	.75	5.3654	4.02	.....	.....	4.02
13	Gate keeper.....	31	.75	5.3654	4.02	.....	.....	4.02
14	Yard master.....	31	.75	5.3654	4.02	\$1.93	.....	5.95
15	Yard man.....	31	.50	5.3654	2.69	1.54	.72	4.95
16	Yard man.....	28	.50	5.3654	2.69	1.39	.....	3.81
17	Yard man.....	31	.50	5.3654	2.69	1.54	.....	4.23
18	Yard man.....	31	.50	5.3654	2.69	1.54	.63	4.86
19	Lamp tender.....	31	.75	5.3654	4.02	.....	.....	4.02
20	Laborer.....	31	.75	5.3654	4.02	.....	.....	4.02
21	Laborer.....	31	.75	5.3654	4.02	.....	.....	4.02
22	Laborer.....	31	.75	5.3654	4.02	.....	.....	4.02
23	Laborer.....	28	.75	5.3654	3.64	.....	.....	3.64
24	Laborer.....	3	.75	5.3654	.39	.....	.....	.39
25	Laborer.....	31	.75	5.3654	4.02	.....	.....	4.02
Total.....		.....	21.00	.....	106.32	7.94	3.02	117.28

a Four shares apportioned to clerks collectively.

b These figures vary somewhat from those calculated on the basis of the share value as given in the preceding column. They are the equivalents, however, of the original figures given in the Italian report, *Atti della R. Commissione d' Inchiesta*, Vol. IV, p. 268.

From this it will be seen that the shares gained by the employees at this station varied from $2\frac{1}{2}$ for station masters to one-half share for yard men; that is, from 69.52 lire (\$13.42) for one station master to 20.85 lire (\$4.02) paid to laborers and to 13.90 lire (\$2.69) paid to yard men, taking into consideration the full month's work. The amount of premium within any class, it will be seen, is also proportionate to the number of days employed. In some stations the station master may be entitled to as many as 4 shares.

It will be seen that the number of parts or shares into which the total premium of 550.88 lire (\$106.32) is divided is 21. The sum which each employee receives is more or less according to the number of shares with which he appears in this division, and the number of shares is in accordance with the importance of his functions.

This holds good for the Adriatic system.

In the Mediterranean company, under a similar system, a unit price for each operation is established upon which the allowances are based; all the operations performed, multiplied by the respective unit prices, together with the fixed allowances and sundry other items, constitute the credit side of the account. The debit, as in the Adriatic company, consists of: The total expenses actually incurred for yard service, the amount of the average monthly wages paid the permanent inferior class of employees, the expenses incurred for temporary help, and the expenses incurred for repair of railway tools and sundry other purposes.

The account, as in the Adriatic company, is settled monthly and the gains—that is to say, the excess of the credit over the debit—are divided in the following proportions: Fifty-four per cent is paid to the employees immediately, 40 per cent goes to the company, and 6 per cent goes to the reserve fund, which is managed very nearly in the same manner as that of the stations of the Adriatic company.

When it becomes necessary to divide the aggregated gains belonging to the employees as a whole among all those who as individuals form the personnel, the Mediterranean company divides it in the following proportions: Station master, 6 shares in some stations, in others 5 to 4; assistant station master, 3 shares; managers, 3 shares; employees train service, $2\frac{1}{2}$ shares; higher employees and clerks, 2 shares; assistants, $1\frac{1}{2}$ shares; yard masters, $2\frac{1}{2}$ shares; yard men, $1\frac{1}{2}$ shares; spot keepers, $1\frac{1}{2}$ shares; laborers, 1 share.

But the entire personnel, even if not comprised in the above list, may participate in the gains, providing that it has also been employed in part on labors pertaining to the service which comes under the gain-sharing system. So, for example, in the stations in which the switchmen may, according to the station regulations, be used as laborers, the latter may participate in proportion to the labor performed, half a share being usually assigned to each.

As an example of the practical application of the system of gain sharing in the Mediterranean company, the station of Asti, which was one of the first stations in which the experiment of labor on the gain-sharing system was introduced, may be taken. It must be borne in mind that with different figures, but on the same plan, the variations occur in the other stations.

SCHEDULE OF CREDITS USED IN DETERMINING BASIS OF DISTRIBUTION OF PREMIUMS TO EMPLOYEES OF STATION OF ASTI.

To the credit of the station.	Unit.	Amounts allowed per unit.			
		July to December, inclusive, 1893.	1894.	January, 1895, to January, 1896, inclusive.	Now in force.
Freight handled:					
Baggage sent out, received, or in transit.	Ton ...	\$0.063032	\$0.070035	\$0.052527	\$0.063032
Dogs	Dog	.019300	.019300	.019300	.019300
Fast freight sent out or received	Ton ...	.063032	.061281	.043772	.040270
Fast freight transferred in transit	Ton ...	.063032	.064783	.043772	.040270
Slow freight sent out or received	Ton ...	.049025	.050776	.081516	.035018
Slow freight transferred in transit, general merchandise or carload lots.	Ton ...	.052527	.056028	.043772	.040270
Shipping for railroad service—					
Fast freight sent out, received, or transferred in transit.	Ton ...	.052527	.070035	.035018	.035018
Slow freight sent out, received, or transferred in transit.	Ton ...	.052527	.070035	.035018	.035018
Disinfecting cars	Car	.069480	.069480	.077200	.098500
Yard service:					
Passenger cars charged to station or in transit.	Car	.038600	.067550	.067550	.048250
Freight cars charged to station or in transit.	Car	.067900	.077200	.067550	.048250
Freight cars freighted to workshops having special tracks.	Car		.098500		
Locomotives turned					
Fixed allowances for sundry services:					
Policing station	Month.	10.422000	12.738000	12.738000	32.231000
Watching of station	Month.	11.590900	172.349000	158.067000	138.767000
Lighting	Month.	3.860800	25.476000	25.476000	25.476000
Switching	Month.	21.230000	152.856000	178.332000	178.332000
General station expenses	Month.		21.230000	38.021000	58.479000
Substitute labor on trains (a)					
Absence of personnel (a)					
Services pertaining to management, supervision, and handling of freight.	Month.			135.872000	6140.890000
Fixed allowance for substitute yard labor.	Month.		134.887700	173.700000	318.836000
Fixed allowance for receiving and consigning trains and for handling cars.	Month.				14.475000
Fixed allowance for copying bills of lading.	Month.				12.738000
Services of foot warmers	Month.		6.948000	8.974500	

a Occasional.

b In October, 1896, the amount was increased to \$166,752.

In the station of Asti, during the month of October, 1895, the expenses incurred were greater than the credits allowed. The exact details of the settlement in the gain sharing of this station for the month of October, 1895, in which the account closed with a deficit of 415.61 lire (\$80.21), were as follows:

TO THE CREDIT OF THE STATION.

8,749 cars handled (at 6.755 cents per car)	\$590.99
Handling freight, baggage, disinfecting cars, etc	325.42
Policing station	12.74
Gate keeping	158.07

Lighting	\$25.48
Switching	178.33
General station expenses	38.02
Help of extra employees on trains }	63.37
Absence of personnel	
Services pertaining to the handling, supervision, and manipulation of freight	135.87
Fixed allowance for yard service	173.70
Total credit	<u>1,701.99</u>

TO THE DEBIT OF THE STATION.

1,164½ hours of yard service with locomotive (at 57.9 cents per hour)	\$674.39
Regular inferior class of employees	825.46
Temporary labor (478½ days)	167.34
Employees sent or transferred to Asti for extra service	96.75
Employees residing in Asti employed as substitutes to replace regular but absent employees	18.26
Total debit	<u>1,782.20</u>
Excess of debit over credit	80.21

During the month covered the average cost per car handled was 0.54 lira (10.422 cents), while the unit allowance per car handled. 0.35 lira (6.755 cents), plus the supplementary fixed allowance of 900 lire (\$173.70) for yard service apportioned to the 8,749 cars actually handled, equal to 0.103 lira (1.9879 cents) per car, makes a total allowance per car of 0.453 lira (8.7429 cents), that is, an allowance of 0.087 lira (1.6791 cents), less than the actual cost.

A similar result is found in the month of October during the preceding year (1894), in which the account was as follows:

TO THE CREDIT OF THE STATION.

Cars handled on basis of unit of price	\$540.56
Handling freight on the basis of unit of price	458.46
Various allowances (including fixed allowance for yard service)	585.14
Total credit	<u>1,584.16</u>

TO THE DEBIT OF THE STATION.

Hours of yard service with locomotive	\$542.28
Regular inferior class of employees	822.28
Temporary labor	166.56
Employees sent from other stations and transferred to Asti for extra service ..	79.62
Repair of railroad tools	2.70
Corrections in the preceding account	2.12
Total debit	<u>1,615.56</u>
Excess of debit over credit	31.40

The average cost per car handled during the month covered by this account amounts to 0.55 lira (10.615 cents), while the unit allowance

per car handled was 0.35, 0.40, or 0.50 lira (6.755, 7.72, or 9.65 cents) according as it included passenger cars, freight cars charged to the station, or cars belonging to private parties, an average of 0.383 lira (7.3919 cents) per car; or in detail 0.35 lira (6.755 cents) per car for 2,589 passenger cars, 0.40 lira (7.72 cents) per car for 4,628 freight cars charged to the station, and 0.50 lira (9.65 cents) per car for 87 cars belonging to private parties, the total number of cars being 7,304.

In addition to this there was the fixed allowance for yard service of 698.90 lire (\$134.89) for handling cars, which, on the basis of 7,304 cars actually handled, was equal to a price per car of 0.096 lira (1.8528 cents), showing total allowance per car of 0.479 lira (9.2447 cents), or 0.071 lira (1.3703 cents) per car less than the actual cost of the labor.

In the month of October, 1896, however, the account closed in favor of the credit side, as will be seen from the following items:

TO THE CREDIT OF THE STATION.

Cars handled on the basis of the unit price of 4.825 cents.....	\$420. 31
Handling freight on the basis of the unit price of 4.825 cents	255. 64
Various allowances (including fixed allowance for yard service of \$318.84) ..	974. 27
Total credit	<u>1, 650. 22</u>

TO THE DEBIT OF THE STATION.

Hours of yard service with locomotive.....	\$476. 90
Regular inferior class of employees.....	844. 37
Temporary labor.....	184. 82
Employees sent from other stations and transferred to Asti for extra service.	86. 05
Employees residing in Asti employed as substitutes for others	23. 45
Total debit	<u>1, 615. 59</u>
Excess of credit over debit	34. 63

During this month the average cost per car handled was 0.40 lira (7.72 cents), while the corresponding unit allowance per car handled was 0.25 lira (4.825 cents), besides the fixed allowance for yard service of 1,652 lire (\$318.84), which, on the basis of 8,711 cars handled, equals a price per car of 0.19 lira (3.667 cents); that is to say, there was a total of 0.44 lira (8.492 cents), showing an earning of 0.04 lira (0.772 cent) per car.

The reason why a loss instead of a gain resulted in many cases from the adoption of the system is seen in the history of Asti. In the year 1894 the allowance for yard labor was only 698.90 lire (\$134.89) and the loss was \$31.40; in 1895 the allowance for yard labor was raised to 900 lire (\$173.70) and the loss was \$80.21; in 1896 the allowance for yard labor was again raised to 1,652 lire (\$318.84) and the excess of credit over debit, or the gain, was \$34.63.

The fault has been not in the gain-sharing system, but in the way it has been applied. The company established a basis of fixed allowances

so low that the expenses incurred were greater than the allowances credited. To produce a gain instead of the loss the company increased, in 1896, the allowance to \$318.84. In most stations the experience in the first years of the system has been the same. As the losses are not chargeable to any negligence on the part of the employees, but to defects in the working out of the system, the company has been obliged to remit the share of the losses chargeable to the employees. The per cent of the losses remitted of the premiums paid to employees is as follows in the Adriatic system: In the year 1892, 22.60 per cent; 12.96 per cent in 1893; 2.05 per cent in 1894; 0.93 per cent in 1895, and 2.22 per cent in 1896. From this it appears that while the losses remitted were high in proportion to the premiums paid in the first years of the working of the system, they are now but a mere trifle. The bases of the gain-sharing system have been in each station revised so as to substitute gains for losses.

It now becomes proper to judge the system of gain sharing in the stations, in order to see whether this system is of such a nature that it can be recommended for imitation to other countries as adequate to conciliate the interests of the laboring men and those of the companies operating the railways.

At first sight it would seem that a system which incites the laborer to greater exertion and to the utilization of all his time with the hope of a considerable participation in the savings in the operating expenses of the stations effected thereby should be recognized by all as a system able to accomplish the double purpose (1) of benefiting the employees by increasing their pay and (2) of reducing the cost of operation.

In reality, however, the complaints of the workmen themselves, of the chambers of commerce, of the communes, of the public, and of the governmental inspectors against the system are great and numerous. It is necessary, however, to examine and judge the system, both in detail and as a whole and in regard to its effects, in order to discover the causes underlying the widely divergent views.

First of all, the preliminary question must be solved, whether the gain-sharing system is applicable to the station service and whether it is not incompatible with the benefits to which the public is entitled. In connection it may be observed that the gain-sharing system is considered by many as not applicable to the station service, because such service is too complex, mixed, and variable, and too closely connected with the public safety.

Abuse of the task system, whether by not allowing a sufficient remuneration or by exacting too much labor to permit good work, can not occasion any damage, because the system is applied exclusively to functions of a special character (like the consumption of fuel, the performance of ordinary labor, etc.). But abuse of the gain-sharing system might compromise the regularity and safety of the service, because it is

plied at the stations where the labor is composed of many variable and undeterminable functions, all of which affect the regularity and safety of the service. The gain-sharing system interposed between the employee and the service to be performed causes the employee to lose sight of the important and only end which he should ever look to and submit to, and that is the regularity and the safety of the service.

The operating companies establish the basis of the gain-sharing system in such a manner as to reduce the number of regular employees as much as possible. The station masters, who direct the management of the gain-sharing system, are interested in increasing the profit allotted to themselves, either by not performing any or by performing little yard service with locomotives, or by not engaging any or only a few temporary employees, and this for the reason that both classes of expenditures weigh heavily on the debit side of the account of the station, diminishing the benefits to be divided. Is it not to be feared that this scheme of management will lead to impairing the regularity and the safety of the service?

Considering the question thus expressed, it seems necessary to conclude that the safety of the service and the lives of travelers should not be placed in danger by maintaining a system which induces the station masters to exaggerate the savings in the expenses which are necessary for the good working of the railway service. One workingman, being interrogated by the commission of inquiry, summed up in the following sharp and effective manner his opinion of the gain-sharing system: "In the gain-sharing system the lion's share falls to the company, the dog's share to the station master, the crumbs from the table to the employees, and the annoyance to the public."

But before pronouncing such a severe condemnation it is necessary to examine carefully the system of gain sharing in all its details in order to see if it is really of such a nature as to endanger the regularity and the safety of the service. The plan of operation of the system provides, as has been said already, for the substitution of temporary laborers (taken on from time to time, according to the needs of the service) for a part of the regular employees paid by the month or by the year, and for allowing to the station masters a freer hand in the distribution of the duties of the service.

By using temporary employees the companies gain the advantage of having a laboring personnel proportionate to the traffic, which is continually changing, and of paying them according to the price of labor in the particular locality. This effects a saving as compared with the system of regular employees only, who must have uniform wages throughout the whole country.

This appears certainly to be an undeniable advantage, but, on the other hand, disadvantages are not lacking upon close examination. One may say that the temporary workers, not having any career to look

forward to, are poor workmen; others say, on the contrary, that being liable to be discharged at any moment they work all the more zealously. Some see a danger of more thefts because the station masters, being interested in the saving of expenses for wages, do not make careful selections; others are of the contrary opinion and say that for the above-mentioned reasons the temporary employees are at the mercy of the administration, and as the thefts and the pilfering would weigh heavily on the debit side of the station account the workmen are greatly interested in watching one another; to which the defenders of the permanent-employee system answer that when, in a station working on the gain-sharing system, there is much labor to perform no time is left the employees for watching one another.

The best system to pursue would be, following the plan which the companies have adopted, to compromise between the two elements, so that the number of regular employees would, in fact, be commensurate with the ordinary traffic, and to call in temporary help only in case of an extraordinary amount of business. This principle, which is already embodied in the general plan, should be worked out in practice so as to prevent any abuse by the station masters. In this manner the necessary elasticity could be obtained, and the danger would be avoided of having the station master, in order to economize greatly, select incompetent persons who offer their services at a small price. The most important point in the system, then, would be to determine a practical method of establishing the regular working force. This force should be neither excessive nor too small, but in regard to number and distribution the employees should be adequate for the work to be performed.

In order to determine whether the number of employees is sufficient, it would be necessary to value the labor performed by them according to certain criteria, which should be sufficiently liberal to meet all emergencies which might occur if a more important labor than the ordinary were required. Instead of this, the time allowances for the various operations are (1) incomplete, because they do not contain all the operations to be performed by the employees, and (2) they are erroneous, because they are so restricted that in some stations, for certain operations, they would not be sufficient for the very best employee to perform the task. The necessary consequence, therefore, is an insufficient number of employees, and through this an overburdening of labor. At Terni 95 hours were allowed the employees for labor, while 36 hours were actually required for its performance.

The total hours of labor which theoretically should be sufficient to perform all the labor of the stations is divided by 8, which represents the daily hours of labor for each employee, the quotient, therefore, giving the number of the employees which on this basis should be connected with the station. If there is a remainder in the division and

this remainder is in the neighborhood of 4, an employee, called a "half-timer," is engaged, who may be employed during one-half of the month in a station without acquiring thereby any right to participate in the gains. But here seems to be an absurdity when it is said that in one station in which the work should be expedited from day to day, perhaps even from hour to hour, for 15 days it could be performed by only 3 employees and for the next 15 days there must be 4 employees for the same labor without changing in any way their individual compensation.

Just as the system of gain sharing is imperfect as applied in determining the number of the employees, so is it also imperfect when applied to the accounts kept at the stations. The monthly accounts which are made up in the stations working on the gain-sharing system have been explained, and the accounts of the stations of Codogno (Adriatic company) and of Asti (Mediterranean company) have been given as examples. In order to see how imperfect the system of accounts is, it will be sufficient to state that the accounts of the station of Asti showed losses. In cases where the company has not made good the loss to the employees who have labored in excess of ordinary work, they have, instead of receiving a premium, been obliged to submit to a diminution of their pay.

To demonstrate how erroneous are the bases of the accounts of the stations, it will be sufficient to state that the stations receive premiums on the basis of quintals of freight handled, but it happens that during the Christmas and Easter holidays the number of packages increases enormously, and sometimes is such that the employees performing the clerical work, although working indefatigably, are not sufficient and must be reenforced by temporary employees. But as these shippings consist of small packages their weight is inconsiderable, and it takes 15 to 20 shippings to be able to gain from 0.08 to 0.10 lira (1.544 to 1.93 cents). It is evident that the increase of the traffic and labor cause, in this case, a diminution of gain to the employees.

So, also, are the accounts of yard service defective. As this service represents an expense for fuel, an entry of 3 lire (57.9 cents) for each operation is made on the debit side of the account of the station. The companies started with the idea that the more the locomotive yard operations cost the less that kind of labor should be resorted to—a principle which, at first sight, appears to be very reasonable, but which in practice has two defects. The first defect is, that with the diminution of that kind of yard service, the regularity of the service is diminished as far as the good and careful utilization of the rolling stock is concerned, the prompt forwarding of freight, the proper making up of trains, etc., and that not a day passes without the occurrence of some irregularities, due principally to the highly exaggerated economies in the yard service. The second defect consists in executing

this class of yard work without keeping strict account of the same on the books. The locomotive engineers while performing this kind of yard work lose on an average 0.40 lira (7.72 cents) of their regular pay for each hour so employed, and it is therefore to their advantage not to have a strict account kept of the work. Concerning the coal used, the locomotive engineer covers this loss with irregularities in his duties, which are sometimes dangerous, such as letting the trains go down grade with great velocity, etc.

Another pernicious practice is the changing of the bases by which the unit prices of labor credited to the station are changed whenever the premiums earned by the employees seem for some months to be too high. These changes of the bases constitute the most demoralizing part of the gain-sharing system, because they create a certain distrust on the part of the employees. Besides this, these changes, being always a consequence of a material increase of the premiums, occur only in stations in which the employees tend, by greater intensity of labor, to augment the premiums beyond the average limit which the company has allotted to the employees. These changes do not occur in places where the employees, fearing a change of the basis, content themselves with the gains allotted to them and do not attempt to increase their earnings to any material extent. This result is to be expected when we bear in mind the fact that the changes are really failures on the part of the company to keep its promises.

Nearly all of the governmental railway inspectors agree in saying that the unit prices on which the station accounts are based have not been established on a principle which would make it possible to obtain a well-established sum to be gained by the employees. This is so true that when bases established do not lead to the end desired by the company they are promptly changed, naturally to the benefit of the company and to the injury of the employees. The Codogno account is typical for the stations on the Adriatic system, but sometimes it happens in some of the stations that the fixed allowances, owing to various causes, such as an increase or a decrease in the traffic, are excessive or not sufficient and may lead to a great gain or loss for the employees. The company is continually trying to eliminate the very great gains by diminishing the bases of the fixed allowances and this practice has led to the charge that the Adriatic company goes on continually reducing the prices formerly established so as to eliminate the possibility of any gain whatever.

The complaints are yet more marked when reference is made to the division of the gains, for nothing is more irritating than to see unequal reward for equal labor. The division of the gains between the Adriatic company and its employees may be examined. In the depositions and written answers of several Government inspectors and of a high functionary of the Adriatic company it has been claimed that the

bases of the station accounts have been fixed so as to give to the employees a premium of only 24 per cent of the savings effected by the employees instead of 60 per cent as apparently called for according to the professed plan. It was claimed furthermore that this 24 per cent was the maximum figure of the gain which the company intended to leave to the employees, the proportion ranging from 15 to 24 per cent.

The following table shows the actual financial results of the service on the gain-sharing system for the Adriatic company from the introduction to December 31, 1897:

RESULTS OF THE GAIN-SHARING SYSTEM FROM ITS BEGINNING TO DECEMBER 31, 1897—
ADRIATIC COMPANY.

Year.	Expenses incurred in period immediately preceding adoption of gain-sharing system.	Expenses incurred after adoption of gain-sharing system for—				Actual savings to company after adoption of gain-sharing system.	Total savings of company and employees.	Per cent of total savings received by—		Per cent of savings of salaries or wages of—	
		Permanent employees.	Temporary employees.	Employees' share of gain. (a)	Total.			Company.	Employees.	Administrative employees.	Operating employees.
1891-2	\$54,603	\$38,063	\$2,726	\$2,973	\$43,762	\$10,841	\$13,814	78.48	21.52	13	17
1893..	271,818	185,768	14,660	21,512	221,940	49,878	71,390	69.87	30.13	18	19
1894..	745,240	517,830	43,719	59,650	621,208	124,032	183,691	67.52	32.48	16	18
1895..	948,487	643,964	57,724	82,743	784,431	164,056	246,799	66.47	33.53	16	18
1896..	1,365,307	969,837	92,891	114,621	1,177,349	187,958	302,579	62.12	37.88	16	18
1897..	1,581,042	1,147,662	130,527	139,177	1,417,366	163,676	302,853	54.04	45.96	16	17½

a Sixty per cent of the gain established by the company according to the principles of the gain-sharing system.

From the data given above, which were derived directly from the administration of the Adriatic company, it will be seen that the employees' share of the actual gain, although more than 24 per cent for each year since 1892, in no case reaches 60 per cent, and at first sight this fact can not be understood. The account is liable to be confused with the account of Codogno, where the employees apparently received 60 per cent. It must be remembered, however, that the Codogno account shows the savings as calculated by the company under the gain-sharing system, and that these savings, because of the small allowances credited by the company, are in every case less than the actual savings.

On the other hand, the present table shows the actual savings effected by the Adriatic company in the stations adopting the gain-sharing system. To find the actual savings, as will be seen by reference to the table, the expenses in the stations which have adopted the gain-sharing system are subtracted from the actual expenses in the same stations for the period (not stated; probably 1890) immediately preceding the adoption of the system. As the company credits much smaller amounts to the stations than were actually expended before the gain-sharing system was adopted, it is easily seen how an apparent

gain of 60 per cent really represents a much smaller proportion of actual savings.

Thus, in 1891-92, in the stations which had adopted the system, the company incurred an expense of 197,217.30 lire (\$38,062.94) for permanent employees, 14,126.20 lire (\$2,726.36) for temporary employees, and 15,403.83 lire (\$2,972.94) for the employees' share of the gain, which was calculated at 60 per cent of the savings according to the credits allowed by the company, making a total expense of 226,747.33 lire (\$43,762.24). This total subtracted from 282,918.60 lire (\$54,603.31), the expense actually incurred in the same stations for the period immediately preceding the adoption of the gain-sharing system, shows an actual saving to the company of 56,171.36 lire (\$10,841.07). This amount, combined with the employees' share of the gain, gives a total gain to company and employees of 71,553.10 lire (\$13,814.01), 78.48 per cent of which went to the company and only 21.52 per cent to the employees.

In 1893 the gain-sharing system was introduced into more stations, and the total expense for all the stations that had adopted the system was 1,149,948.79 lire (\$221,940.12). The actual expense in the same stations for the period immediately preceding the adoption of the system was 1,408,385.62 lire (\$271,818.43), and the actual saving to the company 258,436.83 lire (\$49,878.31). This, added to 111,462.34 lire (\$21,512.23), the employees' share of gain, gave a total gain to company and employees of 369,899.17 lire (\$71,390.54), of which 69.5 per cent went to the company and 30.13 per cent to the employees.

By the same method it is shown that the employees received but 32.48 per cent of actual savings in 1894, 33.53 per cent in 1895, 37.5 per cent in 1896, and 45.96 per cent in 1897, though each of these per cents represented an amount which was just 60 per cent of the savings calculated according to the credits allowed by the company.

Notwithstanding the advance which has been observed in the last year (1897), the gains turned over to the employees, while apparently large, have not been in proportion to the increased labor and to the part which has gone to the benefit of the company's account.

Nor do equal conditions of labor conform to equal premiums. They do not even approach equality. It is well known that the initial premium depended in a great measure upon the conditions of the station at that period of time which immediately preceded the establishment of the gain-sharing system and which served as a basis for computations and comparisons on which the organic force of the station was determined. From this follows the very strange consequence that those who formerly labored under conditions of maximum economy received small premiums, while those who formerly incurred higher expenses participated in larger premiums.

As an example, it may be stated that in the year 1893, in Ferrara, the daily labor, which consisted of 4 hours and 30 minutes for each employee and the handling of freight on the part of laborers of 59 quintals (13,007 pounds), brought a premium of 20 lire (\$3.86), while at Lucca, with a more extended labor (5 hours and 23 minutes) and a handling of freight amounting to 93 quintals (20,503 pounds), the premium was markedly less, being 12 lire (\$2.32). And in the year 1896, in the station of Ancona, a labor of 4 hours and 52 minutes and the handling of 58 quintals (12,787 pounds) resulted in a premium of 23 lire (\$4.44), while in the station of Mantua, however, both the labor (6 hours and 53 minutes) and the handling of freight, amounting to 71 quintals (15,653 pounds), were greater, but the premium, 18 lire (\$3.47), was less. These comparisons could be multiplied indefinitely, and it must be concluded that differences, more or less conspicuous, more or less justified, exist in a great number of stations.

And now, touching the distribution of the gains among the individual employees, the commission of inquiry has in its report made a somewhat sharp criticism of the system, based upon the grievances of the employees, which it seems well to reproduce, although all the objections to the system do not seem equally well founded. Following is this criticism:

The station masters' share of the gain must be regarded as excessive. The shares falling to the other administrative employees, however, can not be said to be excessive; in fact, if the account of the station of Codogno in the Adriatic system be taken as an example, it will be found that 6 clerks received altogether 4 shares, or $\frac{2}{3}$ for each one, while each laborer was credited with $\frac{1}{4}$ of a share.

And here, keeping always the station of Codogno as an example, as this station has been held up as the model for the Adriatic company, and without doubt it is the one which presents the least defects, a query arises which bears upon the whole system of dividing the gains. The credit side of the account of a station is, with the exception of small fixed and sundry other allowances, based on certain unit prices of the weight of freight handled and of the number of wagons and cars handled in the yard service; that is, on the work of the inferior laboring class. The administrative employees, from the station master down to the clerk, being charged with the work of direction and supervision, contribute only in an indirect way toward the gain. Why then should the reward for the workingman's increased labor be taken from him to create gains for persons who have not directly cooperated?

In the station of Codogno the shares of gain—in all 21—are divided as follows: To the laboring personnel (15 persons), which through its labor creates the gain, go $10\frac{1}{2}$ shares; to the directing and supervising personnel (10 persons), which contributes only indirectly to the gain, $10\frac{1}{2}$ shares are allowed. This division does not seem equitable. But even if the shares allotted to the directing and supervising employees were not excessive, it can not be understood why †

rewards given to the administrative employees (which may be considered as being nearly outside the pale of the gain-sharing system) should be taken from the fruits of the labor of the inferior employees.

It would seem more just to throw the weight of this premium for the directing personnel on the marked gains which the company derives from the system of gain sharing. It might be answered that this is really not more than a question of form, because the company, in order to retain its gains undiminished, would simply have to change the proportion of the gains allotted to itself and the employees. In that case, however, the apparent 60 per cent which it pretended was given through a paternal generosity of the company to the employees would disappear.

The governmental railway inspectors recognize the fact that the share of profits of the directing employees is too high, especially that of the station master, so long as this gain is derived from a profit made to a great extent by the more intense labor of the inferior employees; and they think that a mistake has been made in the allotment of the proportional premiums by giving more on account of rank than on account of the labor performed, although they acknowledge that it is just that the station master should have a greater share, as it is upon his effort, like that of any other industrial chief, that depends the perfect quality of the system. Other complaints are made on account of the disparity in the treatment of equal classes of the employees between one station and another, there being, for example, station masters who earn a premium of 113.51 lire (\$21.91) per month, while others only make a surplus gain of 1.60 lire (31 cents).

The opinions expressed by some chambers of commerce are not at variance with the above. They contend that the gains go in great part to the company, and that those gains which are allotted to the employees are adjudged to be inadequate or even ridiculous when compared with the sacrifices which the increased labor imposes upon the latter. More severe still are the criticisms on account of the division among the individual participating employees, either because equity has been disregarded in deciding upon the share of the station master and others or because the allowance of profit to the lower employees is too small and ephemeral. He who labors least earns most, and this principle is certainly not such as to induce the retention of the gain-sharing system, which should be above all a premium on labor.

If the gain-sharing system has not proved very satisfactory to the workmen at the stations, it can be said that it results in large savings to the railway companies. For example, the Adriatic company had calculated that the savings in the year 1895 would amount to 1,100,000 lire (\$212,300), and later to 2,000,000 lire (\$386,000). The savings actually made however, were somewhat lower than predicted, but notwithstanding this they were very considerable. This can be seen

from a table which has appeared on a preceding page, and from which is reproduced the following savings of the company:

1891-92.....	56, 171. 36 lire (\$10, 841. 07)
1893.....	258, 436. 83 lire (\$49, 878. 31)
1894.....	642, 654. 27 lire (\$124, 032. 27)
1895.....	850, 033. 30 lire (\$164, 056. 43)
1896.....	973, 877. 87 lire (\$187, 958. 43)
1897.....	848, 064. 12 lire (\$163, 676. 38)
Total.....	3, 629, 237. 75 lire (\$700, 442. 89)

Other criticisms of the gain-sharing system in stations have appeared from time to time, among these being those made by Mr. Kossuth, son of the celebrated Hungarian patriot, and manager of the second division of the Mediterranean system. Following are the defects mentioned by Kossuth: (*a*)

It must be borne in mind that the principle of authority would in the course of time receive a more or less severe blow from the introduction of a system which to a great extent is pervaded by socialistic principles, to such an extent that it approaches a programme of gain sharing between the company, the Government, and the employees—an idea which in Italy has been announced by several socialistic and democratic deputies.

It is clear that the original organization of the station employees would have to be fixed on the basis of hours of labor required for the operations. After the introduction of the system, however, any acts of superiors which would aim at the settling upon new units of compensation would cause remonstrances from the interested employees, who would claim that these acts changed the conditions of labor and therefore the results of the gain sharing.

To-day (1893) such action on the part of the superiors could neither be criticised nor opposed by the employees without such criticism or opposition assuming the character of a lack of discipline; while after putting the system in force the remonstrances would acquire a character eminently just and legal, becoming nothing else than a remonstrance of an interested partner against damages sustained through the actions of the other partner. Nor would it be of any value to try to circumvent this inconvenience by asserting that the company should maintain intact its authority and the rigor of all its regulations, because these could then be interpreted not only by the superiors, but also by the tribunals.

There would be delays, remonstrances, and discussions on the occasions of transfers, because no matter how carefully the number of necessary employees in each individual station may be estimated, it would nevertheless be evidently impossible, in such a complex system of operations, to make the estimates sufficiently exact to insure equal gains in all the stations.

Attempts would be made, however, from time to time to transfer an individual, but he would never fail to maintain that in the station to

a This statement by Mr. Kossuth was written on June 20, 1893, and at that time the gain-sharing system had not been introduced in the second division of the Mediterranean company.

which he was transferred his part of the gain sharing would be less than it was in the station which he left. He would maintain this notwithstanding that there may be neither reason nor proof of his claiming forcing the company either to prove to him the falsity of his assertion, thus lowering itself to an action which is incompatible with its discipline, or to compel him by the exercise of authority to submit to the transfer, thereby giving rise to arguments and complaints against the alleged injustice of a provision which in itself is perfectly legal.

It is evident that the employees would not be able to obtain the profits in the gain-sharing system without performing labor, to the length and the intensity of which would be much greater than what is required of them to-day. In the beginning every one would submit voluntarily in view of the marked economic advantages which they would derive, but in the course of time, as the employees became accustomed to receiving a certain sum every month as a benefit from the gain sharing, they would come to consider this benefit as a kind of acquired right, as one would say, to increased wages. The day would come in which the individuals would feel the weight of the longer and increased labor, and at this period they would begin, on occasions of punishment for faulty performance of their proper duties, and on occasions of railway disasters, to complain that they were forced to labor during too many hours, and were therefore so exhausted as to consider themselves released from their responsibilities. Then would arise a tendency to reduce the labor to that point which exists to-day, keeping intact, however, the total reward which should result from the sum of the wages and of the gain sharing. It would then be necessary to increase the number of employees without being able to diminish the wages. Little by little a kind of equilibrium between the number of employees and their earnings would be established, so that the gain sharing would not be a reward for extraordinary labor but only a simple individual increase of wages.

A phenomenon nearly analogous manifested itself when the system was introduced of giving to the locomotive engineers a premium for economy in the use of fuel. In the beginning the savings realized were considerable, and originated in the zeal and intelligence of the employees. To-day things have already changed. There is no doubt that the locomotive engineers could perform their services with considerably less fuel than they actually use. When, however, they find from time to time for a few consecutive months that the average premium for economy does not reach the accustomed amount, they are careful to be more saving in the quantity of coal allowed them; this is true of the great majority of engineers, there being a few laudable exceptions. They care very little about economy and consider the premium merely as a supplementary reward acquired by right. Notwithstanding all this, nobody could ever propose the abolition of the system of premiums because it would immediately result in careless and even malicious waste.

Something analogous would manifest itself also in the system of gain sharing, but then there would be no possibility of suppressing the system without provoking the most dangerous state of discontent.

It is certain, therefore, that the gain-sharing system, which would seem to be, theoretically, a perfect system, one that would lead up to the hope that it would help to reestablish harmony between the company and the railway employees, has grave defects which derived

their origin, above all, from the faulty application which has been made of the just principles which grant participation in the savings resulting from the increased industry of the laborers.

It is believed that the best systems of remuneration for labor, the organization, the good sides, and the defects of the gain-sharing system have been shown.

It seems proper to refer, also, to the suggestions for a reform of the system which a most eminent railway engineer has made—a reform which would aim at rendering the system not only just in theory but also equitable and more profitable in practice, both to the company and to the employees. The suggestions are as follows:

The gain-sharing system should start from a healthy and just principle, and while it should work toward the end of greater economy for the administration it should not carry this too far. The basis of the gain-sharing system should be the effective labor performed by the employees at the station.

For this purpose the labor of the station should be divided into two great classes—manual labor and the work of management and administration. The first should have nothing to do with the second, because the laboring employees never undertake the work of the administrative branches, and the administrative employees in the discharge of their duties do not expect help from the laboring employees. For each class there should be established a standard of effective labor, subdivided into two great parts, one fixed and the other variable. The first part should be composed of the fixed labor of each single class of employees, as, for example, supervision of stations, the labor of yard service with regard to ordinary trains, the closing of accounts, made out daily, every ten days, two weeks, or monthly, correspondence, etc.; the second, or variable part, should be the labor which bears, for instance, on the passage of a special train, the finishing of a shipment, the detaching of a ticket, the arrival of a freight train, the transit of a car, etc.

In computing this labor afterwards an account should be kept of all, not only of that limited labor which occurs for each single operation, but also of the increase of labor which this occasions by reflex action in all the bookkeeping work of the station. When the labor of the administrative and managing personnel is separated from that of the manual employees there would not be any connivance between the two classes, which is the origin of so many small irregularities, while it would have for both the tendency toward a uniform purpose—that is, the augmentation of individual labor in order to increase the premium; labor which resolves itself into an increase of traffic and therefore of receipts, of an economy of personnel, and therefore of savings of wages for the administration.

In this manner a maximum of ordinary labor compensated by regular pay could be established, and then would admit of a proportional compensation for all that labor done in addition, a compensation which would constitute the premium of the service on the gain-sharing system. Starting from such premises the service in the gain-sharing system could in time be adopted in any station whatever, but would become operative only in those in which the personnel would be so reduced as to have really to perform an extraordinary amount of labor.

Having fixed a limit of ordinary labor, the employees who are not in favor of gain sharing could find employment in those stations in which the limit is not established. By the application of this principle the disparity which can now be observed between the employees of the different stations in regard to the amount of labor and the relative remuneration would quickly disappear. The employees who would be attracted by a higher remuneration would offer themselves voluntarily to submit to increased labor in order to complete the work of those who would be absent, and the task system would thus lose the obligatory character which it now possesses. The services of those entitled to participate in the reserve fund would immediately be greatly improved, because in the accounts of the employees of the administrative and managing force would be entered as liabilities the errors occurring in bookkeeping, and the accounts of the laboring employees would be charged with the liabilities resulting from the handling of goods. Among the individuals of the two classes there would be reciprocal and easy control. The control under such a system would be of the simplest kind, for the reason that the fixed labor would not need it, and the variable labor would be easily controlled by the entries in the books of the number of freight shippings, arrivals, etc.

The gain-sharing system is, in its first stages of development, full of promises and hopes, and also full of defects. It is still in its first experience, and it must be studied with consideration and care and be continually modified in order to gradually approach that grade of perfection which can fit it for adoption in all the railway operations.

LABOR ORGANIZATIONS.

The data which were obtainable regarding labor organizations among the railway employees are meager, principally on account of the fact that these organizations, being always at variance with the Government, have never given any information which might damage their cause.

The first societies which were established were the mutual-aid society of locomotive engineers and firemen of the railway system of upper Italy, established in 1877 at Milan, and the mutual-aid society among the locomotive engineers and firemen of the railways of the southern system, established in Ancona in 1883. When the Government turned over the railways to private companies, the two societies were combined into one in the year 1885, with a central seat at Milan. These societies were created for the purpose of mutual assistance.

In the year 1890, through the initiative of members of both societies who claimed that the mutual assistance was not sufficient to ameliorate the condition of the employees, the savings association among the employees of the railways of the Mediterranean company was founded. This association, with its main office at Milan, purposed to purchase with the savings of the members shares in the Mediterranean company. By this course the society became a shareholder of the company operating the railways, and could thereby take part in the discussions at the meetings to defend the rights of the employees and to suggest improvements in their condition; but as the society possessed but few

shares, its influence in the shareholders' meetings of the Mediterranean company was a limited one.

The employees then decided to recur to other means for defending their interests, and so was created in Genoa in the year 1890 the *Fascio Ferroviario* (Railway Labor Union). Its purpose was to accumulate sufficient funds to enable the employees to go into litigation with the railway companies in all cases in which they could complain of abuses or of promotions denied. As a result a series of trials came before the courts of justice to defend the rights of the employees. The novelty of the thing, and the hope that one favorable judgment of the court would enable the railway employees to regain their lost ground, enabled the *Fascio Ferroviario* to increase the number of its members in 2 years to 40,000.

But this organized movement was of short duration. The judgments of the courts were nearly always in favor of the railway companies, and only in rare cases, and after tremendous expenses, could the employees obtain a judgment in favor of their cause. In 1893-94 the *Fascio Ferroviario* ceased to exist.

During this period, however, some employees in Milan had founded a society called the *Unione degli Operai ed Impiegati delle Strade Ferrate* (Union of Railway Employees) for the purpose of resistance and aggression against the railway companies. This restored the activity of the mutual-aid society of locomotive engineers and firemen at Milan, and revived some sections of the *Fascio Ferroviario*.

In 1894 a congress was convened at Milan for the purpose of combining all these small and weak societies. This movement was successful, and the members of the former societies became members of the new organization, which took the name of *Lega dei Ferrovieri Italiani* (League of Italian Railway Employees). The members of the society of locomotive engineers and firemen promised adhesion to this new organization, but maintained their autonomy as far as mutual assistance was concerned. For this purpose the monthly dues were fixed at 3 lire (57 $\frac{1}{8}$ cents) paid to the home society, of which sum 0.50 lira (9 $\frac{1}{8}$ cents) went to the benefit of the league. It may be said that the members of the league paid the same dues of 0.50 lira (9 $\frac{1}{8}$ cents) per month. The league also published a bimonthly journal.

The programme of the league was that of resistance against the operating companies. It was a militant society which proposed to declare strikes when the number of its adherents should include the majority of Italian railway employees. In a short time the league succeeded in raising its membership to the number of 10,000. The league having declared its adhesion to the Socialistic Party, the Government dissolved it in October, 1894.

The league, however, promptly reorganized and succeeded in increasing the number of its adherents in such a way that in a little more

than three years the membership amounted to 30,000. The number of members who regularly paid the monthly dues of 0.50 lira (9 $\frac{1}{2}$ cents) does not seem ever to have exceeded 12,000. The main contributors were derived from the class of locomotive engineers and firemen, these numbering in all Italy about 4,000, and of these some 1,800 were members of the league, or 45 per cent.

By 1898 the league had managed to accumulate a resistance fund of about 60,000 lire (\$11,580). Besides this it had contributed to the construction of the Casa dei Ferrovieri Italiani (Italian Railway Employees Building) at Milan, which building cost 220,000 lire (\$42,460), and is used as a place of meeting and reunion for all railway employees. Then followed the disturbances of May, 1898. The league was suspected of having wished to order a strike of the employees for the purpose of assisting the insurgents at Milan, and it was therefore dissolved by the Government. The principal officers were imprisoned and others were obliged to seek safety in flight, while an unfaithful treasurer, in the confusion, appropriated to his own use a part of the society's funds.

The railway labor organizations seem now to have become extinct. It is a fact that up to the present no other new society has been organized, because it is feared that it would be immediately dissolved by the Government and that the chiefs would be punished with imprisonment.

In the absence of a society, however, the railway employees established in October, 1898, a weekly paper, called *El Treno* (The Train). This paper has so far 8,000 subscribers, nearly every one a former member of the dissolved league. The paper defends the same purposes as the league did, on which account a certain sum from the subscription price is set aside for the purposes of propaganda and for defending the rights of railway employees as against the operating companies.

STRIKES.

It may be said that in Italy railway strikes are unknown; still there have been some small movements, from which the fear has often been entertained that other and more important strikes may be brewing. The narration of what has happened and what it has been feared might happen in Italy is interesting, particularly on account of the precautions taken by the State to keep down such serious danger to the public order.

On the 25th of February, 1886—that is, eight months after the railway contracts went into operation—the minister of the interior informed the prefects of the provinces that the workmen in several workshops (Foggia, Naples, Ancona, Rimini, and Rome) had gone on a strike, and he expressed the fear that this strike might extend to other classes of employees on railways, and especially to locomotive engineers and firemen.

A strike of locomotive engineers and firemen, even if it were only partial, might suspend the business of the nation and even the most necessary State functions, and in some cities, including Rome, the supply of food products would be seriously diminished. The minister, therefore, gave orders that in case of strikes, when all other means should prove futile, the locomotive engineers should be compelled by force to perform their services, and should be escorted for their own safety as well as that of the service to their proper places. Such a provision would be legitimized by the laws, and mainly for the supreme and exceptional motive of public order.

In the month of November, 1893, the minister submitted a new organic roll of the postal and telegraph service. The telegraphers, claiming that they had been injured in their interests, began an agitation, of which Rome was the center, for the purpose of preventing this ordinance from being carried into effect. The minister having been informed of these plans ordered the division chiefs to kindly give the employees to understand that they were in no way injured by the organic roll, and to warn them that violence and other reprehensible acts would be severely punished. He gave, besides this, instructions that in case of necessity the telegraphers would be replaced by clerks and substitutes from offices of the second class, by day laborers, and by military telegraphers from the army and from the navy, and at the same time he asked the minister of war to place at his disposition all soldiers who would be capable of lending their services. But the agitators, fearing that if further delay occurred the administration could efficaciously remedy the state of affairs, did not lose any time and succeeded so far that at 11 o'clock on November 20 all the telegraphers at Rome struck and the transmission and receipt of telegrams were suspended. As warnings, good advice, and exhortations were all in vain, steps were taken to substitute new employees for the strikers.

The Government, in order to cut short the strike which had hardly begun, deliberated whether it should apply the most severe penalties to the strikers or overlook their actions if they should repent and return without delay to the service. These menaces helped to cut the strike short before it had extended to all the offices of the Kingdom. Among the 11 offices where the service was partially interrupted were Rome, Milan, Turin, Genoa, and Venice. Of the 968 employees belonging to these offices, 487 went on strike, or 50.3 per cent.

This strike, the only one which was declared in Italy, although it does not refer directly to railway employees, is important in so far as it shows how the Government could bring it to an end and cause the telegraphers to return to their work without employing force. In like manner the Government decided in 1898 to employ force as soon as the fear arose that the railway employees would go on a strike.

In the month of May, 1898, Italy was greatly convulsed by insurrectional disturbances caused by the high price of bread in various regions of the south as well as of the north. Martial law was declared in the provinces of Milan, Florence, and Naples, and the military courts condemned to imprisonment thousands of persons guilty of or suspected of having shown a disposition to rise in insurrection against the Commonwealth. It was also feared that the railway employees would go on a strike in order to help the insurgents of Milan and prevent the Government from sending troops in order to strengthen the somewhat weak garrison of that city.

That the railway employees were impatient to go on a strike is very certain, as had been declared in the Chamber of Deputies in the session of June 4, 1897, by the Hon. Quirino Nofri, deputy from Turin, elected mainly as a representative of railway employees. The Hon. Q. Nofri said that the railway employees were decided even to impede the business of the nation in order to defend their interests; he added, however, that the moment for the strike had not quite arrived, because the railway people were not yet strong enough to oppose and vanquish the railway companies.

When the disturbances of May, 1898, broke out, the fear was frequently and generally expressed that the railway employees would profit by an occasion when there would be great need of transportation on the railways; and confidence was certainly not reestablished by the fact that the would-be strikers declared that they wished only to defend their rights as against the companies. The Government, in order to prevent strikes, the consequences of which at that time would have been very grave and would have endangered the public peace, resolved to militarize a part of the railway personnel, and, consequently, by royal decree of May 10, all persons subject to military duty on indefinite furlough, of any class or category whatever, were called to arms. This call comprised the noncommissioned officers who had been employed among the personnel of the Mediterranean and Adriatic systems and other small roads as depot keepers, locomotive engineers, firemen, workingmen authorized to perform the functions of firemen, also workingmen in the depots, chief switchmen and switchmen, round-house men and cleaners, chief conductors and conductors, chief brakemen and brakemen, yard masters and gang bosses of yard men, and yard men.

This decree ordered that all of these employees should continue to perform their services on the railways; at the same time they would be considered as part of the army. By this means they kept on working under their own superiors, who were also higher graded soldiers called into military service. In this way the danger of a strike was averted, because the employees were placed under military discipline, a distinction being made, however, between faults committed of a

technical or administrative character and those which assumed a military and disciplinary character. The technical and administrative faults continued to be judged under the authority of the railway companies, and were punished according to the regulations governing the roads. The second, such as arbitrary and voluntary absence, strikes, disobedience, and insubordination, were punished according to military law. It was further prescribed that the military uniform should be worn by those employees when not on railway duty, while during railway service, in which nothing was changed, they should use the various distinctive badges of their labor and could wear working clothes.

It is evident that the Government could employ this means of militarizing to prevent the strike only because in Italy the system of obligatory military service exists. Up to the age of 39 years the State can compel its citizens to perform service in the army. In this case the State had incorporated into the army the railway employees, but still could compel them to continue their services on the railway.

So far the matter had been covered only by a decree of the Government, but the law of July 17, 1898, was enacted, and this state of affairs was thereby legalized. Article 4 of the law reads as follows:

The soldiers of the army, as well as of the reserve belonging to the railway, postal, and telegraph services, can be recalled into military service for such time as the Government may judge necessary, still continuing the exercise of their duties and functions in their offices.

These recalled men will continue to receive their regular pay, without acquiring any right to the disbursements of the war office. They will be subjected to military jurisdiction, but will continue to submit to all the obligations and regulations of their respective railway administrations.

This provision of law was not of indefinite duration, but was to remain in force only until June 30, 1899. Before the law expired by this limitation, the Government proposed to insert in Title II of the law regarding public safety a chapter (VI *bis*) entitled "The protection of the public service," with the following provision:

The employees, agents, and workmen performing a public service depending on the State (even if that service should be performed by means of private enterprise) who, in the number of three or more and by previous agreement, abandon their proper duties or charges, or omit to fulfill their duties so as to impede and disturb the regular working of the public service, will be punished, provided that there is no charge of a more serious crime, with imprisonment for not more than one year besides the infliction of the punishment provided for in article 181 of the penal code, which relates to public officials. The promoters and chiefs will be punished with imprisonment for periods of from one to two years.

This bill has not yet been approved by Parliament, on account of the obstructionist policy of certain deputies of the Republican, Socialist,

and Radical parties. The Government, however, promulgated it by royal decree, which has the force of law, so that up to January, 1900, it belonged to the existing legislation of the country, and as such has been received by the courts of justice. But in January, 1900, the high court of cassation of Rome declared the decree void. The Government then asked that the decree be approved and converted into law by the Parliament. The obstructionist policy of the extreme Left of the Chamber of Deputies had up to March, 1900, succeeded in impeding the adoption of the bill.

APPRENTICESHIP SCHOOLS FOR WORKING PEOPLE.

By virtue of article 36 of the agreement, by which the State leased the railways to the companies, there should have been established in connection with every railway system schools for firemen learners and schools for the apprentices in the various workshops.

In the Mediterranean system these schools have proved in general to give very satisfactory results so far as the effect of securing, for the necessities of the service, a sufficient technical personnel furnished with the necessary capacity and aptitude was concerned.

From the following statements will be seen the number of firemen learners who have attended these schools and the number promoted at the end of each course, also the number in the schools for the apprentices in workshops and those licensed at the end of a full course:

SCHOOLS FOR FIREMEN LEARNERS AT TURIN, ALESSANDRIA, MILAN, PISA, AND NAPLES.

Year.	Number attending schools.	Number who passed final examination.
1885-86	78	72
1886-87	95	81
1887-88	92	83
1888-89	80	76
1889-90	65	53
1890-91	60	52
1891-92	48	39
1892-93	48	37
1893-94	76	66
1894-95	91	72
1895-96	92	81
Total	825	688

SCHOOLS FOR APPRENTICES IN THE TURIN AND NAPLES WORKSHOPS.

Year.	Number attending schools.			Number of apprentices licensed at end of full course.
	First year of course.	Second year of course.	Third year of course.	
1890-91	23			
1891-92	17	13		
1892-93	19	16	10	8
1893-94	29	10	5	4
1894-95	38	22	9	7
1895-96	35	31	20	10
Total	161	92	44	29

In the Adriatic system these schools have also contributed to improve the instruction of the railway personnel.

Below is given a statement concerning the schools attached to round-houses, the average number of firemen learners per year who attended them and were declared fit for service during the period of 1886 to 1896, and the number of soldiers permitted by the competent authorities to take part in this instruction being shown :

SCHOOLS FOR FIREMEN LEARNERS ATTACHED TO ROUNDHOUSES, 1886 TO 1896.

Class.	Average yearly number of workingmen.	
	Who attended school.	Who were declared competent.
Civilians, already in service	31	30
Civilians, newly assigned	40	31
Soldiers	38	31

The Sicilian company has also instituted schools for firemen learners, which were opened alternately at Palermo and Messina, so that the young workingmen of the two stations might be enabled to frequent the said schools without forcing them to leave their respective homes.

The results obtained by the institution of these schools are satisfactory. There is now in the class of firemen an element furnished with superior theoretical and practical knowledge and more intelligent than that which previously existed.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

MAINE.

Thirteenth Annual Report of the Bureau of Industrial and Labor Statistics for the State of Maine. 1899. Samuel W. Matthews, Commissioner. 182 pp.

The contents of the present report may be grouped as follows: Cotton, woolen, and boot and shoe industries, 9 pages; factories, mills, and shops, 5 pages; slate and lime industries, 11 pages; the pulp and paper industry, 32 pages; the lumber industry, 23 pages; plush and worsted industries, 6 pages; the agricultural implement industry, 4 pages; railroads, 5 pages; extracts from the proceedings of the fifteenth annual convention of officials of labor bureaus, 68 pages; factory inspection, 10 pages.

COTTON, WOOLEN, AND BOOT AND SHOE INDUSTRIES.—Returns were received from 12 cotton mills, 27 woolen mills, and 6 boot and shoe manufactories. The tabulations show for each establishment the amount of capital invested, cost of material used, value of product, weeks in operation during the year, persons employed, and wages paid. Ten of the 12 cotton mills and 19 of the 27 woolen mills made complete returns for 1898 and 1899. The totals of these returns for each of the two years are shown in the following statement:

STATISTICS OF 10 COTTON AND 19 WOOLEN MILLS, 1898 AND 1899.

Items.	Cotton mills.		Woolen mills.	
	1898.	1899.	1898.	1899.
Capital invested	\$12,588,500.00	\$11,545,025.00	\$2,170,795.00	\$2,067,900.00
Cost of material used	3,905,748.00	4,201,763.00	2,142,724.00	2,187,290.00
Total wages paid	2,596,131.00	2,956,311.00	760,177.00	763,117.00
Value of product	7,455,394.00	8,076,754.00	3,478,282.00	3,373,659.00
Average weekly wages:				
Men	7.45	7.40	8.49	8.79
Women	5.55	5.68	6.10	6.12
Children	2.74	2.87	3.77	3.68
Average employees:				
Men	3,933	4,111	1,359	1,302
Women	6,025	5,114	651	640
Children	625	459	16	18
Total	9,583	9,684	2,026	2,000
Average weeks in operation	47.2	51.1	50.1	48.4

The returns from 6 boot and shoe manufacturing plants show the following totals: Capital invested, \$451,500; cost of material used, \$1,760,462; value of product, \$2,551,005; weeks in operation, 50.6; persons employed, 1,298; total wages paid, \$616,619. The average weekly wages of men were \$10.93; women, \$7.97; and children under 16 years of age, \$4.

FACTORIES, MILLS, AND SHOPS.—Improvements during 1899 were reported in the case of 138 factories, situated in 103 towns. These improvements were in the nature of new buildings and sheds, the rebuilding, enlargement, and alteration of factories, the installation of new machinery plants, etc. It is estimated that these improvements cost \$6,800,700 and gave employment to 4,990 persons. The above figures are greater than those shown at any other time in nine years.

SLATE AND LIME INDUSTRIES.—A review is given of the development and present condition of each of these industries in the State.

PULP AND PAPER INDUSTRY.—This chapter contains a description of the pulp and paper industry and a list of the pulp and chemical fiber mills in the State showing their equipment, output, motive power, number of employees, etc. An account is also given of the forest lands in the State and suggestions are made in relation to their preservation.

The report shows that there were 30 pulp and 28 paper mills in the State, employing 5,902 wage workers, the latter earning an average of \$1.62 per day. The daily product of the mills consisted of 600 tons of paper, 735 tons of ground wood pulp, 330 tons of sulphite pulp, 110 tons of soda pulp, and 60 tons of leather board. In addition to the employees above mentioned, thousands of men are employed in cutting the wood in the forests and conveying it to the mills.

LUMBER INDUSTRY.—This subject is treated in a similar manner to the one preceding. The returns from lumber operators were somewhat incomplete, so that the figures representing this industry can be only roughly estimated. Such an estimate places the total annual output of lumber in the State at 600,000,000 feet, requiring the labor of 15,753 men and 6,736 horses for a period of 134½ working days in the year. The total annual wages paid is estimated at \$1,938,000.

RAILROADS.—In 1899 the 23 steam railways in the State employed 1,036 persons, exclusive of general officers, or 1,184 more than in 1898. The wages paid in 1899 amounted to \$3,242,411.31, a gain of \$419,860.44 over 1898.

The street railways employed 864 persons in the State, who received 390,250.50 in wages in 1899. This was an increase over 1898 of 139 in the number of employees and of \$65,250.50 in the amount of wages paid. The above figures do not include persons employed in road construction.

MASSACHUSETTS.

Twenty-ninth Annual Report of the Massachusetts Bureau of Statistics of Labor. March, 1899. Horace G. Wadlin, Chief. xxviii, 659 pp.

This report consists of the following subjects: Part I, Sunday labor, 100 pages; Part II, graded weekly wages, 384 pages; Part III, labor chronology, 1898, and labor legislation, 1899, 175 pages.

SUNDAY LABOR.—This investigation was undertaken in compliance with a legislative act of 1898. The information was collected by direct inquiry and by special agents. The inquiries relate to the location and average number of persons employed on week days and the largest, smallest, and average number of persons employed in the same establishments on Sundays; the character of service and hours of labor on week days and Sundays; the number of Sundays employed during the year; whether Sunday work was optional or compulsory; whether a day of rest was allowed during the week when Sunday work was required; whether employees were liable to lose their places in case they refused to work on Sundays; the methods of payment for Sunday work; the relative pay for Sunday work as compared with week-day work; whether Sunday work was the same as on week days or was limited to necessary repairs, and the reasons why Sunday work is necessary. The investigation covers Sunday work in transportation, domestic and personal service, trade, manufacturing industries, and in the public service of cities and towns.

With regard to Sunday work in the transportation industries, 157 schedules were received. The transportation industries enumerated comprised cab and herdic companies, dredging companies, electric street railways, steam railroads, express companies, ferries, longshoremen and stevedores, steamboats, towboats, and telegraph and telephone companies. The establishments reporting employed 46,233 persons on week days and 17,994, or 38.92 per cent of that number, on Sundays. Of those employed on Sundays 8,282, or nearly one-half, were employed in the transportation of passengers only, on electric street railways. and 7,726 others were engaged in the transportation of passengers and merchandise by means of carriages, steamboats, and steam railways, making a total of 16,008, or 88.96 per cent, whose Sunday work chiefly consisted in the transportation of passengers. While in the electric street railway service 80 per cent of all employees worked on Sundays, in the steam railroad service this proportion was only 24 per cent.

A general review of the replies to the inquiries used in the investigation shows that in the transportation service the hours of labor on Sundays, while in many cases the same as on week days, were on an average slightly shorter. A great majority of the establishments reported Sunday work on every Sunday during the year. Where Sunday work was performed it was required in most cases, although in a considerable number of establishments it was optional. In the street railway and

express services a day of rest was generally allowed during the week when Sunday work was required, but in most other cases no such rest was permitted. The pay for Sunday work was usually the same as for that on week days, only a few establishments paying a higher rate for the former. As a rule Sunday work was regular and of the same character as the week-day work and was not limited to repairs.

Under the head of miscellaneous industries are considered domestic and personal service, trade, manufacturing, and city and town employees. Domestic service as enumerated in this report includes household service, hotel and restaurant employees, bartenders, livery-stable employees, and barbers. Persons engaged in domestic service, including such bartenders and barbers as were employed in hotels, were usually employed on Sundays. The work was generally much lighter than on week days, except in the case of employees in livery stables. It was usual to allow some time off during the week or to follow a system of rotation wherever Sunday labor was required, except in the case of livery-stable employees. No increased pay was allowed as a rule for Sunday work.

Under the head of trade are considered pharmacists' establishments and milk distribution. Pharmacists' establishments were usually open either throughout the day or during certain hours on Sundays. Not as many persons were employed on Sundays as on week days and employees generally alternated in Sunday work. A half day off during the week was generally allowed when Sunday work was required. Licensed milk drivers and stablemen in dairies were employed practically every day in the year. The hours of labor varied in different establishments. The employees were paid on a basis of seven days to the week and worked accordingly. In some cases they were allowed to absent themselves on Sundays by rotation and in some others by furnishing substitutes.

Under the head of manufacturing industries are considered breweries, bakeries, newspaper printing and publishing, paper mills, gas and electric-light works, and slaughtering and meat packing. Work in these industries was usually restricted to the lowest possible limit required to carry on the process of manufacture, to repair the machinery, or to supply the public needs. The number of employees was usually much smaller and the hours of labor shorter on Sundays than on week days, and in most cases Sunday work was done by rotation or employees working on Sundays were allowed some time off during the week.

The city and town employees considered in this report were those in the police, fire, water, street, and health departments and the library service. In the police and fire departments employees were usually on duty continuously Sundays and week days. In the other city departments but a very small proportion of the employees were on duty on Sundays, and the hours of service were usually much shorter.

In general the Sunday work found to exist in the State in the various lines of industry was confined to such work as was necessary for the protection and preservation of wealth and not for its creation, or else was required in the necessary daily personal duties of life. According to the census of 1895 the number of persons in gainful occupations in the State was, in round numbers, 1,075,000. The report states that possibly 150,000 of these had some connection with Sunday work. Of these at least 113,000 will be found in household and domestic service, in agriculture, or in the fisheries. Of the 37,000 others, 17,994 were in the transportation service, as before indicated. The remainder was distributed among hotel and restaurant service and other employments of a more or less personal nature, miscellaneous industries and trade, city, town, and public institution service, the ministerial and medical professions, etc.

GRADED WEEKLY WAGES.—This part of the report completes the chronological presentation of graded weekly wages which was begun in the report of the Massachusetts bureau for 1895 and continued in installments in subsequent reports. (a) The wage data are arranged alphabetically according to occupations, the present report relating to those having the initial letters P to Y, inclusive.

LABOR CHRONOLOGY.—This part of the report contains information collated from various sources by the Massachusetts bureau. It shows the important acts of labor organizations and other events of the year 1898 regarding hours of labor, wages, and trade unions, arranged in each case in chronological order. It also contains a general review of other events affecting the condition of workingmen in Massachusetts, and a résumé of labor legislation in the State during 1899. In each case reference is made to previous publications of the bureau in which the respective subjects have been treated.

NEW YORK.

Sixteenth Annual Report of the Bureau of Labor Statistics of the State of New York, for the year 1898. Transmitted to the legislature January 23, 1899. John McMackin, Commissioner. xi, 1179 pp.

The contents of the present report are as follows: Introduction, 16 pages; Part I, the economic condition of organized labor, 933 pages; Part II, immigration, its progress, extent, and effect, 198 pages; Part III, investigation of alien labor employed on State contract work, 5 pages; Part IV, the free employment bureau, 17 pages; appendix, labor laws of New York State enacted in 1898, 5 pages.

THE ECONOMIC CONDITION OF ORGANIZED LABOR.—This subject, as in the preceding year, occupies the greater part of the report and covers ground similar to the previous investigation. Tables are given showing in detail for each occupation, industry, and locality, for

the quarters ending December 31, 1897, and March 31, June 30, and September 30, 1898, the number of labor organizations making returns, the number and sex of members, their earnings and days of employment, the number of unemployed, etc. Summary tables are given showing these items by industries and occupations, for each of the 7 quarters, from January, 1897, to September, 1898, inclusive. The information was obtained from figures supplied either by the individual members or by the secretaries of the labor organizations. The following table gives a summary of the data presented for each of the 7 quarters mentioned:

STATISTICS OF LABOR ORGANIZATIONS FOR EACH OF THE QUARTERS FROM JANUARY, 1897, TO SEPTEMBER, 1898.

Items.	Quarter ending—						
	Mar. 31, 1897.	June 30, 1897.	Sept. 30, 1897.	Dec. 31, 1897.	Mar. 31, 1898.	June 30, 1898.	Sept. 30, 1898.
Organizations reporting.....	927	976	1,009	1,029	1,048	1,079	1,087
Membership on last day of quarter:							
Men.....	138,249	147,105	162,690	167,250	173,349	164,802	163,515
Women.....	4,321	4,101	5,764	6,712	6,606	7,538	7,506
Total.....	142,570	151,206	168,454	173,962	179,955	172,340	171,067
Members unemployed during entire quarter.....	35,381	17,877	10,893	10,132	18,102	10,272	9,734
Members unemployed on last day of quarter.....	43,654	27,378	23,230	39,353	37,857	35,643	22,485
Per cent of total membership....	30.6	18.1	13.8	22.6	21.0	20.7	13.1
Average days of employment during quarter:							
Men.....	58	69	67	65	62	61	65
Women.....	63	57	66	56	61	58	64
Average earnings of members during quarter:							
Men.....	\$155.06	\$159.12	\$174.40	\$174.54	\$163.61	\$168.05	\$175.41
Women.....	85.63	81.39	91.80	73.71	75.06	76.88	81.63

^a This is not a correct total for the preceding items. The figures given are, however, according to the original.

There was a steady increase in the number of organizations reporting to the bureau, due, in a measure, to greater completeness in the returns, but chiefly to increased activity in the organization of labor. The total membership of labor organizations shows an increase at the end of each quarter, except the second and third quarters of 1898, when there is a decrease. This falling off in membership was chiefly due to the lapsing of one union of 8,000 members during the second quarter and of another union of 1,835 members during the third quarter of 1898, and does not, therefore, show a general decline throughout the State.

With regard to the unemployed members of labor organizations, a comparison of the first three quarters of 1897 with the corresponding quarters of 1898 shows that there was a marked decrease in the number of members unemployed during each entire quarter, and in two of the three cases there was a decrease in the number of unemployed on the last day of each quarter.

A comparison of the average number of days employed during the first three quarters of 1897 and 1898 shows a slight decrease during the latter year. A similar comparison of the average earnings shows

an increase in the case of the men and a decrease in the case of the women in 1898.

The membership of labor organizations and the per cent of members unemployed at the end of each quarter is shown, by industries, in the following two tables:

MEMBERSHIP OF LABOR ORGANIZATIONS AT THE END OF EACH QUARTER FROM JANUARY, 1897, TO SEPTEMBER, 1898.

Industries.	Membership of labor organizations on—						
	Mar. 31, 1897.	June 30, 1897.	Sept. 30, 1897.	Dec. 31, 1897.	Mar. 31, 1898.	June 30, 1898.	Sept. 30, 1898.
Building trades.....	46,711	46,056	48,398	48,801	50,607	54,612	55,093
Cigars, cigarettes, and tobacco.....	7,394	6,962	9,097	9,029	8,842	8,947	8,889
Clothing.....	13,436	18,633	26,942	27,792	27,575	22,004	20,571
Coach drivers and livery-stable employees.....	2,086	2,036	1,872	1,270	1,550	2,082	1,780
Food products.....	2,698	2,578	2,548	2,440	2,432	2,683	2,586
Furniture.....	645	551	801	841	1,008	875	950
Glass workers.....	1,380	881	818	921	1,875	806	754
Hats, caps, and furs.....	2,405	2,297	2,336	2,125	2,314	1,718	1,697
Hotel, restaurant, and park employees.....	1,556	2,009	1,453	1,455	1,379	1,635	1,404
Iron and steel.....	9,420	10,759	10,653	11,019	10,837	11,652	12,551
Leather workers.....	3,421	2,336	2,189	2,642	2,935	2,741	2,700
Malt liquors and mineral waters.....	2,471	3,353	4,073	3,733	3,747	3,806	3,483
Marine trades.....	2,405	2,860	3,113	2,497	2,420	2,344	2,282
Metal workers.....	853	946	963	1,034	843	1,362	1,511
Musicians and musical-instrument workers.....	1,012	2,168	5,379	5,070	5,231	5,172	5,597
Printing, binding, etc.....	13,695	13,133	13,260	14,191	14,449	14,535	14,957
Railroad employees (steam).....	9,491	9,745	9,896	10,059	10,340	10,333	10,457
Railroad employees (street surface).....	3,149	3,203	3,247	5,695	4,544	5,407	3,680
Stone workers.....	5,197	5,114	5,299	5,060	4,909	4,577	4,865
Street paving, etc.....	672	674	636	653	554	585	596
Textile trades.....	1,237	1,174	680	457	456	1,471	1,465
Theatrical employees and actors.....	1,873	1,870	1,910	1,871	4,156	4,164	4,115
Woodworkers.....	1,933	1,786	1,769	1,673	1,892	1,864	1,741
Miscellaneous trades.....	7,430	10,082	11,114	13,644	16,060	6,965	7,019
Total.....	142,570	151,206	168,454	173,962	179,955	172,340	171,067

PER CENT OF MEMBERS OF LABOR ORGANIZATIONS UNEMPLOYED AT THE END OF EACH QUARTER FROM JANUARY, 1897, TO SEPTEMBER, 1898.

Industries.	Per cent of members of labor organizations unemployed on—						
	Mar. 31, 1897.	June 30, 1897.	Sept. 30, 1897.	Dec. 31, 1897.	Mar. 31, 1898.	June 30, 1898.	Sept. 30, 1898.
Building trades.....	47.4	23.0	14.9	25.0	31.5	23.2	17.6
Cigars, cigarettes, and tobacco.....	16.9	8.9	11.7	20.0	10.6	10.4	12.1
Clothing.....	25.9	15.8	13.1	42.8	14.8	53.6	17.4
Coach drivers and livery-stable employees.....	20.1	19.4	20.9	6.3	8.8	18.3	21.9
Food products.....	16.5	14.8	11.1	11.5	15.5	9.1	9.1
Furniture.....	36.0	33.4	8.8	22.1	22.5	18.5	7.3
Glass workers.....	33.9	34.2	45.1	29.1	13.9	5.6	27.0
Hats, caps, and furs.....	32.8	10.8	3.3	15.0	17.2	7.9	3.9
Hotel, restaurant, and park employees.....	26.3	31.8	21.8	14.6	27.8	17.6	22.4
Iron and steel.....	23.4	13.2	9.6	15.1	10.0	9.7	6.7
Leather workers.....	22.6	24.9	43.3	43.5	8.8	20.9	17.0
Malt liquors and mineral waters.....	9.4	7.6	7.9	6.5	7.4	11.7	7.5
Marine trades.....	9.6	9.1	13.1	15.9	13.3	10.0	11.7
Metal workers.....	20.7	22.7	22.9	17.7	3.0	8.6	10.5
Musicians and musical-instrument workers.....	30.1	22.8	4.9	6.9	6.5	7.9	2.5
Printing, binding, etc.....	18.1	17.1	17.9	10.4	10.1	12.8	13.9
Railroad employees (steam).....	2.9	3.1	3.0	3.3	2.7	3.2	1.5
Railroad employees (street surface).....	1.6	.....	1.5	3.1	2.6	1.6	6.8
Stone workers.....	52.4	23.1	22.1	48.2	63.4	32.8	26.0
Street paving, etc.....	80.9	6.7	4.4	9.5	81.6	36.9	48.2
Textile trades.....	44.7	38.1	37.1	36.6	21.1	6	14.1
Theatrical employees and actors.....	41.3	54.8	87.7	37.8	2.9	18.1	2.3
Woodworkers.....	36.4	27.2	12.2	29.3	21.2	25.9	8.6
Miscellaneous trades.....	29.0	21.3	15.6	18.1	43.1	11.5	6.0
Total.....	30.6	18.1	13.8	22.6	21.0	20.7	13.1

IMMIGRATION.—This chapter contains a history of immigration from colonial times to the present, with especial reference to New York, remarks of labor organizations concerning the effects of immigration, immigration laws and statistics of immigration, and the effects of immigration upon employment and wages as reported by labor organizations.

ALIEN LABOR EMPLOYED ON STATE CONTRACT WORK.—This part of the report contains the results of an investigation of the mode of employment of aliens, the wages earned, and their general condition. The investigation relates chiefly to Italian labor under the *padrone* system. A table is given showing the number of persons employed on canal-improvement work and the wages paid in each occupation.

THE FREE EMPLOYMENT BUREAU.—During the year ending December 31, 1898, 5,100 persons made application to the bureau for employment, of whom 2,487 were males and 2,613 were females. Situations were secured for 234 males and 1,786 females, or 2,020 persons in all. Of the applicants for situations 341 had 684 children depending upon them. Most of the applicants were under 30 years of age.

RHODE ISLAND.

Twelfth Annual Report of the Commissioner of Industrial Statistics, made to the General Assembly at its January session, 1899. Henry E. Tiepke, Commissioner. vii, 615 pp.

The present report treats of the following subjects: Rhode Island in the war with Spain, 125 pages; statistics of textile manufactures, 52 pages; taxpayers and population, 3 pages; decisions of courts affecting labor, 319 pages; labor laws, 102 pages.

RHODE ISLAND IN THE WAR WITH SPAIN.—Statistics are given showing the age, nativity, occupation, etc., of persons who enlisted in Rhode Island during the war with Spain.

TEXTILE MANUFACTURES.—Comparative statistics are given, based upon returns made in the years 1896 and 1897 by 135 firms engaged in textile industries. Of the firms reporting 66 were engaged in the manufacture of cotton goods, 8 in hosiery and knit goods, 11 in bleaching, dyeing, and printing, 4 in silk goods, and 46 in woolen goods.

Following is a summary of the figures presented:

STATISTICS OF 135 TEXTILE MANUFACTURING ESTABLISHMENTS, 1886 AND 1897.

Items.	1886.	1897.	Increase.	
			Amount.	Per cent.
Firms	53	50	a3	a5.66
Corporations.....	82	85	3	3.66
Partners and stockholders.....	1,307	1,419	112	8.57
Capital invested	\$47,795,439	\$50,273,363	\$2,477,924	5.18
Cost of material used	\$23,484,936	\$27,876,239	\$4,391,303	18.70
Value of goods made	\$39,039,685	\$45,867,220	\$6,827,535	17.49
Aggregate wages paid	\$10,143,322	\$11,335,309	\$1,191,987	11.75
Average days in operation.....	267.30	281.78	14.48	5.42
Employees:				
Average number.....	31,777	33,614	1,837	5.78
Greatest number.....	34,307	35,918	1,611	4.70
Smallest number	23,701	29,019	5,318	22.44
Average yearly earnings.....	\$319.20	\$337.22	\$18.02	5.65

a Decrease.

DECISIONS OF COURTS AFFECTING LABOR.—This chapter is devoted to a reproduction of the decisions published in the bulletins of the United States Department of Labor during the year 1898.

LABOR LAWS.—In this chapter are reproduced the labor laws passed in recent years in Maine, New Hampshire, Massachusetts, Connecticut, and Rhode Island.

THIRTEENTH ANNUAL REPORT OF THE BOARD OF MEDIATION AND ARBITRATION OF THE STATE OF NEW YORK.

Thirteenth Annual Report of the Board of Mediation and Arbitration of the State of New York. Transmitted to the Legislature February 5, 1900. James M. Gilbert, W. H. H. Webster, and Francis B. Delehanty, Commissioners. 61 pp.

This report contains an account of each of the most important cases of labor disputes which came before the board for action during the year 1899, and a table showing the number of strikes, by industries, that have taken place during the past 5 years.

There was, in 1899, an increase in the number of strikes, the total being higher than for any year since 1891. This increase was not confined to any particular lines of industry. The most frequent causes were wage disputes. During the year 1899 the board had information of 455 strikes, but at least 60 per cent of these were of short duration, and had no appreciable effect upon general labor conditions. The 455 strikes were distributed as follows among the different occupations:

STRIKES IN NEW YORK, BY OCCUPATIONS, 1899.

Occupations.	Strikes.	Occupations.	Strikes.	Occupations.	Strikes.
Bakers.....	4	Glass workers.....	4	Pipe fitters.....	3
Bell boys.....	1	Glove makers.....	1	Printing trades.....	18
Boller makers.....	4	Goldbeaters.....	1	Print makers.....	1
Brickmakers.....	5	Golf caddies.....	3	Purse makers.....	1
Brewery workmen.....	2	Grain scoopers.....	1	Railroad employees.....	3
Building trades.....	112	Handkerchief makers.....	1	Salt packers.....	1
Butchers.....	3	Horseshoers.....	1	Shirt makers.....	1
Buttonhole makers and button makers.....	1	Ice handlers.....	5	Shoe workers.....	5
Cab drivers.....	1	Iron molders.....	20	Silk workers.....	5
Cabinetmakers.....	1	Jewelers.....	1	Silver platers.....	2
Carpet weavers.....	4	Laborers.....	53	Slipper makers.....	1
Calson makers.....	1	Laundry workers.....	1	Soap makers.....	1
Cap makers.....	2	Leather workers.....	1	Stage hands.....	1
Cement workers.....	2	Longshoremen.....	18	Steel workers.....	2
Cigarette makers.....	3	Machinists.....	13	Stonecutters.....	6
Cigar makers.....	12	Marble workers.....	1	Street railway employ- ees.....	4
Collar makers.....	1	Match packers.....	3	Tanners.....	1
Coopers.....	3	Messengers.....	1	Teamsters.....	9
Cordage workers.....	1	Metal workers.....	11	Textile workers.....	9
Diamond workers.....	2	Mince-meat makers.....	1	Tow boys.....	1
Drill makers.....	1	Miners.....	1	Upholsterers.....	2
Dyers.....	2	Musicians.....	1	Waiters.....	3
Electric wiremen.....	4	Newsboys.....	7	Waxworkers.....	1
Express messengers.....	2	Oyster dredgers.....	1	Wood workers.....	2
Fiber chamols workers.....	2	Pavers.....	2		
Garment workers.....	39	Piano makers.....	3		
		Pickle makers.....	1	Total.....	455

RECENT FOREIGN STATISTICAL PUBLICATIONS.

FRANCE.

Bases Statistiques de l'Assurance contre les Accidents d'après les Résultats de l'Assurance Obligatoire en Allemagne et en Autriche. Office du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. 1899. 234 pp.

The enforcement of the French workingmen's compensation act of April 9, 1898, has necessitated a complete recasting of accident insurance in France, and has emphasized the need of scientific bases for the fixing of premium rates. In view of the absence of sufficiently reliable statistics of accidents in French industries, it was deemed advisable to utilize the experience of neighboring countries which, on account of the compulsory insurance in force there, had collected a vast amount of information on this subject. For this purpose the French labor bureau has undertaken the task of recapitulating in a systematic way the statistical data published annually by the German and Austrian Governments.

The present work, which is a continuation of previous studies of the statistical results and the workings of compulsory accident insurance in Germany and Austria published by the bureau, recapitulates and completes the data up to and including the year 1897 in the case of Germany and 1896 in the case of Austria. The tables presented permit the determining of the probable values of accident risks in the various industries, and also serve to ascertain to what extent the previous theoretical calculations have been confirmed by an experience of twelve years in Germany and seven years in Austria. They furnish, therefore, more exact and complete bases for accident insurance than have thus far been available.

Les Associations Professionnelles Ouvrières. Tome I. Office du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. 1899. iv, 905 pp.

The French bureau of labor has published annually since 1889 a list of all trade and agricultural associations and the various auxiliary institutions created by them. These annual reports, however, give no account of the development, purposes, or workings of these asso-

ciations or their influence upon the condition of the working people. The present work is intended to supply this information.

This report consists of three parts. The first part contains a review of French legislation with regard to trade associations, coalitions, etc., from 1791 until 1884, and an historical review of the movement for organized labor from 1791 to 1898. The second part gives, by industries, an account of the development of each of the various tentative trade organizations in the principal cities of France which, after the passage of the law of 1884, became the regularly incorporated national and sectional trade federations. The third part of the report is devoted to an historical account of the various local federations of unions of different trades and the more important labor exchanges. The first part and so much of the second part of the report as relates to trade organizations in the agricultural, mining, food, chemical product, and printing and publishing industries are included in the present volume.

The legislation with regard to trade associations and coalitions has been almost entirely of a repressive character, and it was not until 1884 that the State fully recognized the right of association on the part of trade unions and similar bodies.(a)

In spite of the prohibitive legislation in force in France from 1791 to 1884, secret trade unions (*sociétés compagnonniques*) managed to thrive, and through their excellent organization, each trade having its own national federation, they rendered services to their members equal and sometimes superior to the modern authorized trade organizations. Their efforts were supported by the creation of mutual aid, cooperative productive, and mutual credit societies, labor congresses, etc. Mutual-aid societies were suppressed for a time during the first empire, but being finally authorized they served as a means of uniting the working people in their efforts to protect their wages and other interests. While the repressive legislation during three-quarters of a century impeded the collective relations between employers and employees, it neither prevented strikes nor the propagation of the various theories for the improvement of the condition of the working people.

The passage of the law of 1884 marked a new era in labor organization, and since that time the trade unions have been gradually replacing all other forms of labor association. They have their trade federations, labor exchanges, congresses, etc., and maintain auxiliary institutions such as mutual aid and credit funds, cooperative productive associations, employment bureaus, etc. The following table shows the number and membership of trade unions and the number

a For an account of French legislation on the right of association, etc., see Bulletin No. 25, pages 836-839.

of cooperative productive associations in France, by groups of industries, on January 1, 1898:

TRADE UNIONS AND COOPERATIVE PRODUCTIVE ASSOCIATIONS, JANUARY 1, 1898

Industries.	Trade unions.		Cooperative productive associations.
	Number.	Membership.	
Agriculture, forestry, and fisheries.....	69	8,002	
Mining and quarrying.....	43	41,760	
Food products.....	146	18,552	
Chemical products.....	76	27,967	
Paper, printing, and publishing.....	197	13,944	
Hides and leather goods.....	167	20,282	
Textiles proper.....	169	35,432	
Clothing, cleaning, etc.....	129	8,092	
Woodworking.....	199	13,588	
Metals and metallic goods.....	286	38,316	
Stone, earthenware, and glass.....	70	9,150	
Building trades.....	450	33,795	
Transportation and commerce.....	243	160,208	
Other industries.....	60	8,725	
Total.....	2,324	434,331	

a This is not a correct total for the preceding items. The figures given are, however, according to the original.

GREAT BRITAIN.

Eleventh Report on Trade Unions in Great Britain and Ireland, 1898.

lxxiv, 311 pp. (Published by the Labor Department of the British Board of Trade.)

The present report covers the same ground as the reports for preceding years, except that a new feature is added consisting of an analysis of the financial rules of the principal trade unions. The information contained in the report is presented in the form of detailed tables, showing the returns for the years 1892 to 1898 for each trade union, arranged according to industries. These tables are preceded by an analysis and a series of summary tables. In the body of the report only those trade unions are considered which furnished returns for all the seven years. The rest, which were comparatively few, are shown separately in the appendix.

The number of trade unions making complete returns for 1898 was 1,267. Thirty-five trade unions, with a membership of 66,192 persons, were formed during 1898; 56 unions, with a membership of 16,279, were dissolved, and 19 sectional unions were amalgamated with larger organizations of their trades. While the net result of these figures shows a decrease in the number of unions reporting in 1898, the membership rose from 1,611,384 in 1897 to 1,644,591 in 1898, an increase of over 2 per cent.

With regard to the sex of members, the returns show that 140 unions included females in their membership, the total of these in 1898 being 116,016, or a little over 7 per cent of the total trade union

membership. Twenty-nine unions were composed exclusively of women. About 92 per cent of all female trade unionists were engaged in the textile trades.

The following tables show the number and membership of trade unions, by groups of industries, for the seven years 1892 to 1898, inclusive:

NUMBER OF TRADE UNIONS, BY GROUPS OF INDUSTRIES, 1892 TO 1898.

[In this tabulation only those trade unions are considered which furnished returns for all of the seven years included in this period.]

Year.	Build- ing.	Mining and quarry- ing.	Metal, engi- neering, and ship build- ing.	Textile.	Cloth- ing.	Trans- porta- tion (land and sea).	Print- ing, paper, etc.	Wood working and fur- nishing.	Miscel- laneous.	Total
1892.....	96	73	297	216	42	60	52	106	262	1,208
1893.....	101	77	290	221	45	63	56	113	289	1,255
1894.....	124	78	285	232	43	66	56	114	297	1,295
1895.....	126	78	283	242	47	67	55	117	296	1,311
1896.....	133	77	288	242	51	64	56	116	290	1,317
1897.....	142	64	281	246	48	66	55	116	289	1,307
1898.....	134	58	276	239	46	63	53	116	282	1,267

MEMBERSHIP OF TRADE UNIONS, BY GROUPS OF INDUSTRIES, 1892 TO 1898.

[In this tabulation only those trade unions are considered which furnished returns for all of the seven years included in this period.]

Year.	Build- ing.	Mining and quarry- ing.	Metal, engi- neering, and ship build- ing.	Textile.	Cloth- ing.	Trans- porta- tion (land and sea).	Print- ing, paper, etc.	Wood working and fur- nishing.	Miscel- laneous.	Total.
1892.....	160,388	315,098	278,159	204,039	83,114	153,937	45,291	31,811	229,246	1,501,083
1893.....	175,379	318,142	265,256	205,431	80,580	141,839	46,725	31,890	213,691	1,478,936
1894.....	181,648	307,772	263,027	215,289	81,591	123,776	47,886	30,696	186,981	1,438,666
1895.....	181,901	279,559	267,983	218,709	78,361	120,352	49,060	31,839	178,883	1,406,647
1896.....	196,274	279,429	302,471	218,233	76,708	134,826	50,956	36,618	197,860	1,493,375
1897.....	219,401	282,432	318,180	217,716	75,619	183,873	52,570	38,564	223,029	1,611,384
1898.....	235,862	352,826	307,902	213,776	70,344	147,298	53,970	37,841	224,772	1,644,591

Of the groups of industries enumerated above, the building, mining and quarrying, printing, paper, etc., and miscellaneous trades show an increase, while the metal, engineering, and shipbuilding, textile, clothing, transportation, and wood working and furnishing trades show a decrease in membership. The largest membership (352,826) was reported by the group of mining and quarrying. Next in order were the groups of metal, engineering, and shipbuilding, with 307,902 members, and of building trades, with 235,862 members.

The financial operations and benefit features of trade unions are shown for only 100 of the principal organizations. These in 1898 comprised 1,043,476 members, or 63 per cent of the total trade union membership reported. The following comparative statement shows the financial

operations of the 100 principal trade unions for the seven years 1892 to 1898:

FINANCIAL OPERATIONS OF 100 PRINCIPAL TRADE UNIONS, 1892 TO 1898.

Year.	Members at end of year.	Income.	Expenditures.	Funds on hand at end of year.
1892.....	909,648	\$7,101,265	\$6,916,119	\$7,822,747
1893.....	914,311	7,882,747	9,027,353	6,987,340
1894.....	928,105	7,943,311	6,987,340	6,773,720
1895.....	917,950	7,591,321	6,773,720	6,013,631
1896.....	964,809	8,153,991	6,013,631	9,237,079
1897.....	1,065,910	9,641,758	9,237,079	7,249,484
1898.....	1,043,476	9,321,562	7,249,484	

The total income and expenditures of the 100 unions have fallen off during 1898, concurrently with the membership, while the funds on hand at the end of the year show an increase. The total expenditures of the 100 unions in 1898 amounted to £1,489,671 (\$7,249,484), or 21.5 per cent less than in 1897. This was expended mostly on various kinds of benefits, the nature and the amount of the latter varying considerably in the different unions. Thus of the 100 unions, 61 provided unemployed and traveling benefits, 49 paid sick benefits, 43 provided accident benefits, 12 made contributions to medical charities, 39 paid superannuation benefits, and 88 paid funeral benefits. Probably all trade unions provide for the payment of dispute benefits, but in some years a number of unions are not called upon to pay anything under this head. Among the 100 considered, 15 do not show any such expenditures in 1898.

The following tables show the total expenditures and the amount expended per member on each of the various benefits during each of the years 1892 to 1898:

EXPENDITURES OF 100 PRINCIPAL TRADE UNIONS ON VARIOUS BENEFITS, ETC., 1892 TO 1898.

Year.	Unemployed, traveling, and emigration benefit. (a)	Dispute benefit. (a)	Sick and accident benefit.	Superannuation benefit.	Funeral benefit.	Other benefits and grants to members. (b)	Working and other expenses.	Total.
1892.....	\$1,568,166	\$1,859,188	\$1,020,388	\$496,485	\$333,628	\$391,987	\$1,244,277	\$6,916,119
1893.....	2,232,799	2,869,809	1,173,766	547,905	366,238	610,084	1,226,752	9,027,353
1894.....	2,222,584	800,276	1,117,694	595,825	340,631	674,161	1,236,169	6,987,340
1895.....	2,053,658	975,193	1,281,851	641,701	371,314	226,779	1,223,224	6,773,720
1896.....	1,287,471	839,861	1,199,772	693,564	367,372	307,665	1,317,926	6,013,631
1897.....	1,603,093	3,157,317	1,308,227	740,696	387,510	556,306	1,494,930	9,237,079
1898.....	1,176,321	1,533,385	1,356,863	796,855	408,105	485,706	1,492,249	7,249,484

a In a few cases it was not possible to separate a certain amount of unemployed benefit from dispute benefit.

b Includes grants to members, grants from one society to another, payments to federations, trade councils, congresses, etc.

EXPENDITURES PER MEMBER OF 100 PRINCIPAL TRADE UNIONS ON VARIOUS BENEFITS, ETC., 1892 TO 1898.

[The expenditure per member is calculated on the basis of the total membership of the 100 principal trade unions, and not on the membership of the unions paying the particular classes of benefits.]

Year.	Unemployed, traveling, and emigration benefit. (a)	Dispute benefit. (a)	Sick and accident benefit.	Superannuation benefit.	Funeral benefit.	Other benefits and grants to members. (b)	Working and other expenses.	Total.
1892.....	\$1.72	\$2.04	\$1.12	\$0.55	\$0.37	\$0.43	\$1.37	\$7.60
1893.....	2.44	3.14	1.28	.60	.40	.67	1.34	9.87
1894.....	2.39	.86	1.21	.64	.37	.73	1.33	7.53
1895.....	2.24	1.06	1.39	.70	.41	.25	1.33	7.38
1896.....	1.33	.87	1.24	.72	.38	.32	1.37	6.23
1897.....	1.51	2.96	1.23	.69	.37	.52	1.39	8.67
1898.....	1.12	1.47	1.30	.77	.39	.47	1.43	6.95

a In a few cases it was not possible to separate a certain amount of unemployed benefit from dispute benefit.

b Includes grants to members, grants from one society to another, payments to federations, trade councils, congresses, etc.

A comparison of the items of expenditure during the seven-year period shows a steady growth of expenditure per member on superannuation benefits, marked variations in the expenditures for dispute and unemployed benefits, and a comparatively uniform cost per head for sickness, accident, funeral, and other benefits, and grants to members. The expenditures for unemployed, traveling, and emigration benefits in 1898 were smaller than during any year of the period. Taken as a whole, there is no perceptible tendency shown either toward increased or decreased expenditures per member on the part of trade unions.

The other forms of labor organizations considered in this report are trade councils and federations of trade unions. These institutions have been defined in the digests of the previous reports. The following summary shows the distribution of federations according to groups of industries and the trade councils for the years 1895 to 1898:

FEDERATIONS OF TRADE UNIONS AND TRADE COUNCILS, 1895 TO 1898.

Groups of Industries.	1895.		1896.		1897.		1898.	
	Number.	Membership.	Number.	Membership.	Number.	Membership.	Number.	Membership.
Federations of trade unions:								
Building trades.....	40	94,934	37	74,648	37	91,949	34	94,612
Mining.....	14	417,328	13	401,916	12	361,182	9	300,717
Metal, engineering, and shipbuilding.....	15	191,098	16	207,759	16	212,416	16	234,406
Textiles.....	18	297,842	18	177,939	19	268,958	18	257,410
Transportation (land and sea).....	2	23,716	3	57,820	6	72,624	6	42,914
Printing and allied trades.....	5	29,820	8	32,595	8	34,318	8	44,598
Woodworking and furnishing.....	9	12,882	13	16,973	11	16,764	10	12,204
Enginemmen.....	4	10,085	4	10,082	5	10,925	4	6,766
Other trades.....	5	10,969	6	15,282	6	20,447	7	16,063
Total.....	112	1,088,674	118	995,014	120	1,088,583	112	1,009,690
Trade councils.....	154	690,870	151	700,651	155	701,289	156	701,717

The total gross membership of unions participating in the 112 federations in 1898 was reported as 1,009,690, but, owing to the duplications arising from the fact that the same unions are sometimes affiliated with more than one federation, about 25 per cent should be deducted to obtain the actual number of individuals represented. Federations were most numerous in the building trades, but the largest federation membership was reported in the groups of mining, of textiles, and of metal, engineering, and shipbuilding trades. Of trade councils, 15 reported a total membership of 701,717 persons.

The new chapter added to the present report consists of a statement based on the rules of 100 principal trade unions, showing for each union the age, qualifications, entrance fees, and weekly contributions of their members, together with the amount of dispute and various friendly benefits paid to those entitled to the same.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, has been continued in successive issues. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks and when long by being printed solid. In order to save space, immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

CONSTITUTIONALITY OF STATUTE—SUNDAY LABOR—BARBERS—*Petit v. State of Minnesota*, 20 *Supreme Court Reporter*, page 666.—This case came before the Supreme Court of the United States on a writ of error directed to the supreme court of the State of Minnesota, in which one Paul J. Petit had been convicted of violating the law of that State forbidding Sunday labor. The point in issue was the constitutionality of the statute under which the conviction was had, and the same was affirmed in the decision of the court, which was rendered April 9, 1900.

From the opinion of the court, delivered by Chief Justice Fuller, the following is quoted:

Petit was tried and convicted of keeping open a barber shop on Sunday, for the purpose of cutting hair and shaving beards, contrary to sec. 6513 of the General Statutes of Minnesota for 1894, and the judgment was affirmed by the supreme court of Minnesota. (74 Minn., 376; 77 N. W., 225.) This writ of error was then allowed.

Section 6513 reads as follows: "All labor on Sunday is prohibited, excepting the works of necessity or charity. In works of necessity or charity is included whatever is needful during the day for good order, health, or comfort of the community: *Provided, however,* That keeping open a barber shop on Sunday for the purpose of cutting hair and shaving beards shall not be deemed a work of necessity or charity."

We have uniformly recognized State laws relating to the observance of Sunday as enacted in the legitimate exercise of the police power of the State. Well-nigh innumerable decisions of the State courts have sustained the validity of such laws.

But it is contended that by reason of the proviso this act must be held unconstitutional, because thereby restricted in its operation on the particular class of craftsmen to which Petit belonged, as contradistinguished from other classes of labor. The proviso was added in 1887 to sec. 225 of the Penal Code of Minnesota of 1885. (Laws Minn., 1887, chap. 54.)

By the original statute all labor was prohibited, excepting the works of necessity or charity, which included whatever was needful during the day for the good order, health, or comfort of the community. As the supreme court said, if keeping a barber shop open on Sunday for the purposes of shaving and hair cutting was not a work of necessity or charity, within the meaning of the statute as it originally read, the amendment did not change the law. And it would be going very far to hold that because out of abundant caution the legislature may have sought to obviate any misconception as to what should be considered needful during that day for the comfort of the community, as respected work generally so desirable as tonsorial labor, by declaring the meaning of the statute as it stood, therefore the law was transferred to the category of class legislation. The legislature had the right to define its own language, and the statute thus interpreted could not reasonably be held to have made any discrimination.

The question is not whether the bare fact of shaving some particular individual under exceptional circumstances might not be upheld, but whether the public exercise of the occupation of shaving and hair cutting could be justified as a work of necessity or charity.

We think that the keeping open by barbers of their shops on Sunday for the general pursuit of their ordinary calling was, as matter of law, not within the exception of the statute as it read before the amendment.

But even if the question whether keeping open a barber shop on Sunday for cutting hair and shaving beards, under some circumstances, was a work of necessity or charity, was a question of fact under the original act, which was foreclosed as such by the amendment, the result is the same.

Assuming that the proviso did have this effect, the supreme court was of opinion that the classification was not purely arbitrary. The court pointed out that the law did not forbid a man shaving himself or getting someone else to shave him, but the keeping open a barber shop for that purpose on Sunday; that the object mainly was to protect the employees by insuring them a day of rest; and said, "Courts will take judicial notice of the fact that, in view of the custom to keep barber shops open in the evening as well as in the day, the employees in them work more, and during later, hours than those engaged in most other occupations, and that this is especially true on Saturday afternoons and evenings; also that, owing to the habit of so many men to postpone getting shaved until Sunday, if such shops were to be permitted to be kept open on Sunday, the employees would ordinarily be deprived of rest during half of that day. In view of all these facts we can not say that the legislature has exceeded the limits of its legislative police power in declaring that, as a matter of law, keeping barber shops open on Sunday is not a work of necessity or charity, while as to all other kinds of labor they have left that question to be determined as one of fact."

We recognize the force of the distinctions suggested and perceive no adequate ground for interfering with the wide discretion confessedly necessarily exercised by the States in these matters, by holding that the classification was so palpably arbitrary as to bring the law into conflict with the Federal Constitution.

EMPLOYERS' LIABILITY—CONSTRUCTION OF STATUTE—FELLOW-SERVANTS—*Brush Electric Light and Power Co. v. Wells*, 35 *South-eastern Reporter*, page 365.—Rebecca Wells sued the above-named company for damages for the homicide of her husband, who was a lineman in the employ of said company, and who was killed by the sudden turning on of the electric current while he was repairing a wire, having climbed a pole for that purpose. The evidence showed that if there was any negligence in the turning on of the current it was the negligence of the engineer of the company, and the question of liability of the company turned upon the point as to whether said engineer was or was not a fellow-servant of the deceased. In the city court of Savannah, Ga., a judgment was rendered in favor of the plaintiff and the defendant company carried the case upon a writ of error before the supreme court of the State which rendered its decision March 3, 1900, and reversed the judgment of the lower court, holding that the engineer was a fellow-servant of the deceased and that, therefore, the company was not liable for his negligence.

Judge Fish delivered the opinion of the supreme court, and in the course of the same he used the following language:

Granting that the engineer neglected to give the required signal upon that occasion, and that his failure to do so caused Wells's death, was the defendant, under the law, liable for his homicide? In other words, would the rule as to fellow-servants, as stated in section 2610 of the Civil Code, apply? viz, that the master, except in case of railroad companies, is not liable to one servant for injuries arising from the negligence or misconduct of other servants about the same business. Counsel for defendant in error contended that the facts of this case did not bring it within such rule, for the reason that the respective duties of the engineer and the lineman, Wells, were performed in different departments of the company's business, so that there was no opportunity for the exertion of a mutual influence upon each other's carefulness.

At this point the judge cited and quoted from numerous decisions of the courts, and then continued in part as follows:

The "different department limitation," or the "doctrine of consociation," to the effect that the fellow-servant rule is not applicable where the servant injured is employed in a department of the general service which is separate and distinct from that of the servant whose negligence caused the injury, is not recognized in this State, as is manifest from the decisions referred to above; and the great preponderance of judicial authority elsewhere is unquestionably against such a restriction of the fellow-servant rule.

Applying the law as we conceive it to be to the facts of the present case, the engineer of the Brush Electric Light and Power Company and Wells, its lineman, being subject to direction and control by the same general master, in the same common enterprise, we servants, though employed in different departments of duty far removed from each other that one could in no degree influence the conduct of the other; and, granting that Wells

by reason of the negligence of the engineer in failing to give the signal before the electric current was turned on, the defendant company was not liable to Wells's widow for his homicide. Judgment reversed.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—NEGLIGENCE OF FELLOW-SERVANT—CONSTRUCTION OF STATUTE—*Fenwick v. Illinois Central Ry. Co.*, 100 Federal Reporter, page 247.—This case came before the United States circuit court of appeals for the fifth circuit upon a writ of error, directed to the United States circuit court for the southern district of Mississippi, a judgment having been rendered therein in favor of the defendant railway company, which had been sued by one Fenwick to recover damages for personal injuries incurred by him while in its employ. The decision of the court of appeals was rendered February 28, 1900, and affirmed the judgment of the circuit court.

The facts in the case are sufficiently shown in the opinion of the court of appeals, which was delivered by Circuit Judge Shelby, and from the same the following is quoted:

Joseph Fenwick, the plaintiff, was injured while in the employment of the defendant. He alleged that the injury was caused by the negligence of Frank Puckett, who was also a servant of the defendant. Puckett, Hughes, Fredericks, and the plaintiff constituted the switch crew in defendant's yard at McComb City, Miss. Sullivan was the yardmaster, and, on the night that the injury occurred, Frank Puckett was acting as foreman of the switch crew. In the absence of statutes or constitutional provisions controlling the case, it is conceded that the plaintiff could not recover, because the employer would not be responsible to the plaintiff for an injury caused by the negligence of a fellow-servant. The plaintiff's contention is that the defendant is made liable by section 193 of the constitution of Mississippi adopted in 1890, which provision is also embraced in a statute. (Ann. Code, Miss., 1892, § 3559.) The part of the section relied on is as follows: "Every employee of a railroad corporation shall have the same rights and remedies for an injury suffered by him from the act or omission of the corporation or its employees as are allowed by law to other persons not employees, where the injury results from the negligence of a superior agent or officer, or of a person having the right to control or direct the services of the party injured."

It was clearly not the intention of the makers of the constitution or the legislature to entirely abrogate the common law relating to negligence of fellow-servants. It is only modified. The rule is only changed when the injury results from the negligence of a "superior agent or officer," or of "a person having the right to control or direct the services of the party injured." In the case of *Evans v. Railway Co.*, 7 Miss., 527; 12 South., 581, a brakeman was injured by the alleged negligence of an engineer, and the cited constitutional provision was relied on by the plaintiff. In the course of the opinion the court said: "The constitutional provision has reference to a superior agent or of the sort well known as such, and any other person in the

company's service, by whatever name, who may be intrusted with the right to control and direct the services of others according to his discretion and judgment—one to whom is committed the direction or control of others, for the accomplishment of some end dependent on his independent orders, born of the occasion, sprung from him as director, and not consisting of the mere execution of routine duties in pursuance of fixed rules by various employees, each charged with certain parts in the general performance. It may be that under some circumstances the engineer may be the superior of the brakeman, in the meaning of the constitution, but, in the operation of the train in accordance with rules, one is no more superior than the other, and they are not within the rule established by the constitution. To hold that they are would, by interpretation, so enlarge the constitutional provision as to sweep away entirely the rule as to fellow-servants as existing before, in the face of the incontrovertible fact that the purpose of the framers of the constitution was not to abrogate, but to modify to a certain extent, carefully expressed in section 193."

This construction of the statute in question seems to us decisive of this case. The business of the switch crew was to distribute the cars on the various tracks in order to make up the trains. One of the crew was called the "foreman." On the night in question, and for that occasion, the yard master, Sullivan, had appointed Puckett foreman. Puckett had the switch list, or written memorandum by which the crew switched the cars. This is furnished the crew by the yard master. There are five tracks in the yard, including the "lead" on which the cars were to be switched. On certain tracks designated cars were to be placed, and the men were engaged in that work. We do not find in the evidence that Puckett was employed to direct the services of the plaintiff according to his discretion and judgment. The crew were engaged in the performance of mere routine duties. The plaintiff and Puckett were of the same rank in the service; neither employed or could discharge the other; they received the same pay; and neither was superior to the other, in the sense that the one could exercise a discretion and judgment in controlling the actions of the other.

Under other circumstances a foreman of a crew might be an agent of the defendant, for whose negligence the defendant would be liable for injury to an employee. The name or title of the officer or agent is immaterial. We decide only that on the facts disclosed by the record the foreman did not, in reference to the services in which he and the plaintiff were engaged when the injury occurred, bear such relation to him as to make the employer responsible under the statute for his alleged negligence. We think that the circuit court correctly directed a verdict for the defendant. The judgment of the circuit court is affirmed.

EXAMINATION, LICENSING, ETC., OF BARBERS—CONSTRUCTION OF STATUTE—*Wass v. Michigan Board of Examiners for Barbers*, 82 *Northwestern Reporter*, page 234.—An application for mandamus was filed in the supreme court of Michigan by Fred S. Wass against the Michigan board of examiners for barbers and after a hearing, in a decision rendered by said court March 27, 1900, the writ was denied.

The opinion of the court, delivered by Judge Hooker, shows the facts in the case and reads as follows:

The relator alleges that he is a barber, and has worked at that calling for more than two years immediately preceding his application to the respondents, in Ohio and Michigan, the last eleven months of which period he worked in this State. He applied to the respondents for a certificate as a barber, under act No. 212 of the Public Acts of 1899, and, being refused a certificate, asks a mandamus to compel its issue. The answer of the respondents shows that the only ground of refusal is that the relator is not entitled to such certificate without paying \$5 to the treasurer of the board, and submitting to examination; not having been engaged in the business of a barber in this State for the period of two years. Relator claims that, having been engaged in the business of a barber for two years, he is entitled to the certificate of the board, whether said business was conducted in Michigan or another of the United States, and this is the only question that we are called upon to decide. Counsel for the relator, in their brief, say that, "so far as this case is concerned, it is simply a matter of construing the meaning of sections 6 and 7 of the act." They read as follows:

"SECTION 6. Each person applying to said board for a certificate shall pay to the treasurer thereof the sum of five dollars, which shall entitle him to examination and to a certificate if found qualified: *Provided*. This section shall not apply to barbers now engaged in the business of a barber in this State and who have been so engaged for the period of two years.

"SEC. 7. Every person now engaged in the business of a barber in this State, and who has been so engaged for a period of two years or more, shall within ninety days after this act shall take effect file with the secretary of said board a statement verified by his oath to be administered by any notary public of the State, showing his name, place of business, post-office address, the length of time he has actually served as a barber, and shall pay to said secretary the sum of one dollar and receive and shall be entitled to receive from said board a certificate as a barber, and shall pay annually thereafter the sum of fifty cents for a renewal of said certificate."

The question resolves itself into this, viz: Whether the words "so engaged" refer to the words "engaged in the business of a barber," or to the words "engaged in the business of a barber in this State." We have no doubt that the latter was the meaning intended. It is said that section 7 does not require the application to show that the applicant has been engaged in the business of a barber in this State for two years, but we think the entire act should be construed together; and, whatever the application may be required to show, we are satisfied that it was designed that the applicant should not be entitled to a certificate without examination, and the payment of a fee of \$5, unless he should show that fact. The writ is denied, with costs.

PENALTY FOR MAKING FALSE CLAIMS AGAINST SEAMEN—CONSTRUCTION OF STATUTE—*United States v. Nelson*, 100 *Federal Reporter*, page 125.—This was a prosecution brought in the United States district court for the southern district of Alabama under section 10 of chapter 121 of the acts of 1883-84, as amended by chapter 421 of the acts of

1885-86 and by section 24 of chapter 28 of the acts of 1898-99. A demurrer to the indictment was filed claiming that the penal provision in the statute applied only to false statements made for the purpose of establishing a claim against an allotment of wages made by a stipulation as provided by said statute, and that it had no reference to any other false claims against seamen such as was made in the case at bar. The district court, in its decision rendered February 1, 1900, took this view of the case and sustained the demurrer, dismissing the indictment.

The opinion of the court, delivered by District Judge Toulmin, reads as follows:

The indictment in this case is found under section 10 of an act to amend the laws relating to American seamen, for the protection of such seamen, and to promote commerce. The statute provides that it is unlawful to pay any seaman wages in advance of the time when he has actually earned the same, or to pay such advance wages to any other person. Such payment is forbidden under penalties therein provided for. But it shall be lawful for any seaman to stipulate in his shipping agreement for an allotment of any portion of his wages, not exceeding one month's wages, to be paid to an original creditor in liquidation of any just debt for board or clothing which he may have contracted prior to engagement. All stipulations for the allotment of any portion of the wages of a seaman shall be inserted in the agreement, and shall state the amounts and times of the payments to be made, and the persons to whom the payments are to be made; and any person who shall make a false statement of the nature or amount of any debt claimed to be due from any seaman under this statute shall be punishable, etc.

The term "seaman," as used in this statute, clearly means those Americans who practice or are employed in navigation—whose avocation is that of mariner. To construe the statute as applying to those persons only who ship or engage to ship on American vessels, it seems to me, would give too narrow a construction to it, too small a field for its operation, and make the statute inconsistent with itself and inharmonious as a whole. The statute is designed to protect the seaman from imposition by any person, by providing that no portion of his wages shall be paid in advance, and be thereafter deducted from his wages when actually earned, except he stipulates in his shipping agreement for an allotment of an amount to be fixed, and not to exceed one month's wages, out of which allotment any sum justly due to an original creditor for board and clothing, which he may have contracted for prior to his engagement, shall be paid.

The stipulation for the allotment having been inserted in the agreement, the statute provides that any person who shall make a false statement of the nature and amount of any debt claimed to be due from the seaman shall be subject to a penalty. That the statute applies to American seamen—Americans whose avocation is that of mariner—only, is, I think, clear; and I think it is equally clear that the provision prohibiting, under penalty, the making of a false claim or statement, refers to making a claim against said allotted sum. It is made unlawful by the statute for a master to pay a seaman wages in advance or to pay such advance wages to any other persons, unless, as I construe the law, they be paid out of an allotment stipulated for by the seaman in his shipping agreement; and any master who

payment, in the absence of the stipulation and allotment required, would be liable to the penalties provided for in the statute. This liability of the master was doubtless considered a sufficient protection to the seaman from a false claim presented to the master where there has been no stipulation and allotment provided for in the shipping agreement; but where there has been such stipulation and allotment the master would in that event be authorized to pay advance wages to the extent of the amount stipulated for. The penalties imposed on any person who should make a false claim, or a false statement of the nature and amount of any claim, against the seaman, and stipulated for in his shipping agreement, was intended to protect the seaman from such false claim. The allotment is made to meet claims against the seaman for board and clothing, and the stipulation for the allotment must be inserted in the shipping agreement. No wages can be lawfully paid in liquidation of such claim without the stipulation and allotment. Any person making a false claim against such allotment shall be liable to the penalty. This is, in my opinion, the correct interpretation of the law.

The statute declares that it is applicable to foreign vessels, and it provides that any master, owner, agent, or consignee who violates its provisions shall be liable to the same penalty that the master, etc., of a vessel of the United States would be, provided that treaties in force between the United States and foreign nations do not conflict. The penalty there referred to is the penalty for paying wages in advance to the seaman, or paying advance wages to any other person unlawfully; and the master, owner, or agent of a foreign vessel is liable to this penalty unless there is a treaty between the United States and the nation to which the vessel belongs in conflict with the statute. The demurrer is sustained.

STRIKES—INJUNCTION—COMBINATIONS OF WORKMEN—PICKETING—*Cumberland Glass Manufacturing Co. v. Glass Blowers' Association of the United States and Canada et al.*, 46 *Atlantic Reporter*, page 208.—This was a bill in equity, brought in the court of chancery of the State of New Jersey by the above-named manufacturing company, asking for the issuance of an injunction to restrain the defendants from interfering with workmen engaged by the company. The bill of the complainant sets out that it was a manufacturer of both window glass and hollow ware; that on March 16, 1899, it received a letter from Dennis A. Hayes, president of the Glass Bottle Blowers' Association of the United States and Canada, stating that the nonunion glassblowers of South Jersey had organized and agreed that they should ask their employers to concede them such wages and privileges as had been agreed upon between the union manufacturers and their employees; that the letter requested a meeting to discuss this matter; that those manufacturers who had received copies of the letter met and appointed a committee to confer with Mr. Hayes; that this committee, being unable to come to an agreement with Mr. Hayes, suggested the appointment of an arbitration committee, to which suggestion Mr. Hayes refused to accede and declined to consider any proposition

which did not include an increase of wages and a reduction in the number of future apprentices and the subjection of all manufacturers to the domination of the defendant association; that on April 8, 1899, all the journeymen blowers and finishers, with two exceptions, in the hollow-ware department of complainant's works left their work while the molten glass was in the furnace and tanks and this branch of work has since been idle.

The bill further stated that Hayes lived in Philadelphia, but came to Bridgeton, where the glass works were located, and directed the strike, either personally or through orders issued by him to William M. Doughty; Charles Doughty, and George W. Branin, none of whom were residents of Bridgeton, but who, since the strike, were continuously in the city, conducting it; that Mr. Hayes, William Lanning, secretary, Conrad Auth, its treasurer, and William Doughty and George W. Branin, members of the executive committee of the Glass Bottle Blowers' Association, had furnished sums of money to prevent the workers from returning to their work; that two branches of said association, namely, No. 8 and No. 19, were organized in Bridgeton to assist in disbursing said sums; that certain persons, acting by advice of said association, congregated in large numbers, some armed with clubs, about the approaches to the company's factory, and by threats and force coerced and intimidated such workmen as offered their services to the complainant; that they not only guarded such approaches, but guarded all railroad stations to prevent, by violence, people taking employment with the complainant; that the complainant was compelled to lodge 30 of its employees within its works to protect them from injury, and that the strikers attacked and maltreated those about to enter complainant's works. The affidavits attached to complainant's bill were, in substance, to the following effect: That from the inception of the strike the street in front of the entrance to the works was constantly occupied by bands of strikers, some armed with clubs; that they used indecent and threatening language to the workmen; that they interposed physically between the entrance and anyone wishing to enter or who was suspected to be a prospective employee; that they threw bricks and stones against the house and fence of the company and into the house of one who lodged the workmen of the company; that employees and those suspected of seeking work were held up and insulted and threatened on the street and on the city cars; that the platforms of the railroad stations on each arrival of a train were crowded with strikers, and workmen were sought out and physically pushed into the headquarters of the strikers, where they were half persuaded and half coerced into abandoning their intention of working in complainant's factory, and that incoming trains with workmen on board were bombarded with stones and the persons in charge of these workmen were struck and seriously injured.

The answer of the defendants practically admitted the allegations of the complaint except the acts of violence, the commission of any such acts being denied. After considering the papers, the court of chancery rendered its decision December 14, 1899, and issued an injunction, but against those only who were shown to have used force and coercion, refusing to enjoin the Glass Bottle Blowers' Association, or its officers, as such, holding that neither a workingman's association, conducting and financially supporting a strike by its members, nor the president of such association who organizes and directs such strike, confers with its leaders, disburses the financial aid to strikers, and promises it to others on their striking, will be enjoined at suit of the employer to restrain interference with engaged employees, neither having authorized, encouraged, known of, or tacitly approved any acts of violence.

The opinion of the court, delivered by Vice-Chancellor Reed, contains the following language:

/ Every employer has the right to engage, or refuse to engage, whomsoever he chooses, just as every workman has the right to enter or refuse to enter the service of any employer, as he may choose. Apart from obligations arising from special contract for employment, or for services, for a specified period of time, every employer has the right to discharge a workman, and every workman has the privilege of leaving the service of his employer, at his pleasure. The freedom of the individual workman to seek employment, and of the individual master to give or refuse employment, belongs to every citizen. Formerly a concerted act, by which a number of workmen combined to leave a master's employment simultaneously, or to persuade other workmen to leave his employment together, for the purpose of injuring his business, or of compelling him to concede increased wages, or to hire or discharge particular workmen, was an indictable conspiracy. It was, however, held, in the case of *Mayer v. Association*, 47 N. J. Eq., 519, 20 Atl., 492, that since the passage of the act of 1883 [acts of 1883, page 36, act approved February 14, 1883] a combination which before that time would have been held to be a conspiracy became by the force of this statute a lawful combination. This act has not been repealed. By its terms it is lawful for workmen to combine to persuade, by peaceable means, any person or persons to enter into any combination for the leaving or entering into the employment of any person or persons or corporation. The purpose of the act was undoubtedly to legalize strikes; i. e. the organization of concerted simultaneous cessation of work by bodies of workmen. The words employed by the statute cover a combination for the purpose of persuading others to combine for the purpose of entering or leaving an employment. The words would seem to intend a legalization of a combination to induce others to join in a strike, and are, perhaps, broad enough to legalize a combination to persuade individual workmen to quit, or refuse to enter the service of any person or persons or corporation. According to the act, the means adopted must be peaceable, as the words "persuade, advise, or encourage" indicate, without the use of the words "by peaceable means." Therefore the methods adopted to induce a workman to quit, or to refuse to enter, an employment must be persuasive, and

not coercive. It is entirely settled that the moment that individuals, either singly or in company, for the purpose of compelling a master to accede to their views, use force or threats of force, or in any way injure or threaten to injure either the master, or those working or wishing to work for him, the act becomes illegal. Interference with the movement of employees in passing in and out of their employer's factory, or the use of abusive language, upon the street or elsewhere, toward such employees—indeed, any conduct which is calculated to induce those working or wishing to work, against their wish, to abandon their work, or their intention to seek work—is within the limits of coercive conduct. There is no contrariety of judicial view in respect to the illegality in the use of any act which is calculated to coerce, but in respect to what acts are to be regarded as coercive there is naturally more difference in judicial sentiment. It finds expression mainly upon the fact of "picketing;" that is, by relays of guards in front of a factory or the place of business of the employer, for the purpose of watching who should enter or leave the same.

At this point in the opinion the judge cites and quotes from a number of cases involving the legality of picketing, and then continues, in art, as follows:

I can not say that the law is so settled that a preliminary injunction can go upon the notion that picketing, without some other act evidential of coercion, is in itself evidence of intimidation. The decision of the question, I think, must depend upon the circumstances surrounding each case. There must be taken into account the size of the guard, the extent of their occupation of the street, and what they say and do. Making every circumstance into account, if it appears that the purpose of the picketing is to interfere with those passing into or out of the works, or those wishing to pass into the works, by other than persuasive means, it is illegal. If the design of the picketing is to see who will be the subject of persuasive inducements, such picketing is legal.

It remains to draw conclusions in respect to the facts proved as applicable to the doctrine thus stated. The fact that there was disorderly and unlawful conduct on the part of very many of those engaged in the strike is not refuted. It is entirely clear that, almost continuously, large bodies of men were in the street, in front of and around the factory of the complainant, and that large bodies of men tended the arrival of each incoming train. Now, the force of the testimony is that, while the directions to the guards and strikers in general may have been to employ only persuasive methods to induce workmen to quit the service of complainant, or to refrain from entering into its service, coercive measures were in fact resorted to. It is not surprising that this should be so. When large bodies of men are combined to bring about a purpose, in the accomplishment of which their feelings and passions are involved, the line which separates argument from force is not readily recognized, or, if recognized, not easily observed. Nevertheless, each man is bound to observe the right of the employee and employer to employ or seek employment undeterred by coercive influences. Now, it goes without saying that the bombardment of complainant's fences and the boarding house, the attack upon incoming trains carrying employees, and the physical interference with the interception of workmen, were illegal acts. So, too, I think, was

the gathering of large crowds of workmen about the railroad station to assist in the interception of workmen. The actual outcome of such a crowd was seen at each arrival. The newcomers were surrounded, and jostled, and pushed along, until they were landed in the headquarters of the strikers. It was almost a physical impossibility for the workmen to move otherwise than according to the will of the crowd, however much they may have wished to do so. In respect to the crowd guarding the works, the question is whether it can be regarded as merely picketing for the purpose of seeing what was going on, or whether it was there for the purpose of exercising a coercive power upon those who came to work, or those already working for the complainant. Taking the testimony so far as it stands substantially uncontradicted, I conclude that the crowd spoken of in the complainant's affidavits as "guards," judged by its size and acts, were [was] designed for coercive as well as persuasive purposes. Conceding that a number of strikers could remain in the vicinity of the factory yard, to see what was going on, yet when the number became a crowd, and when the acts of the crowd expanded into occasional attacks upon property, and abusive language toward employees, and interference with those seeking to enter the yard, the "guard" became a coercive instrument. A permanent guard in a public street in front of citizens' houses or a factory is in itself a nuisance.

The court at this point went on and considered the cases of the individuals concerned in the strike and refused to enjoin any except those who were directly concerned in acts of violence or coercion, against whom it allowed an injunction to issue restraining them from the commission of such acts after the issuance of the injunction.

DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY—DUTY OF THE MASTER—SAFE PLACE TO WORK—*Grace and Hyde Co. v. Kennedy*, 99 *Federal Reporter*, page 679.—In the United States circuit court for the southern district of New York, one Daniel Kennedy recovered a judgment in a suit brought by him for damages for personal injuries, against the above-named company, his employer. He was employed by said company in the erection of a shed over a sidewalk and was standing on top of a post nailing a wooden girder thereto when the accident happened. The work was being prosecuted during the night, and at about half past 4 o'clock in the morning a mail van coming down the street ran against one of two guy ropes of a derrick, which ropes were stretched across the street. Said guy rope swayed over and threw Kennedy from the top of the post to the sidewalk, and his kneecap and one arm were broken. The evidence showed that it was customary to place red lights upon obstructions or to employ a watchman to warn against danger; that four red lanterns had been furnished by the company, two of which had been broken before the night of the accident; that the two remaining ones were placed upon a beam in the street, but that

none were placed upon the guy ropes, and in consequence thereof the driver of the mail van did not see the rope into which he ran; also that no watchman had been employed by the company. From the judgment of the circuit court the company appealed to the United States circuit court of appeals for the second circuit, which court rendered its decision January 24, 1900, and affirmed the judgment of the lower court.

From the opinion of the court of appeals, which was delivered by Circuit Judge Shipman, the following is quoted:

The case was presented to the jury by the plaintiff upon the theory that, inasmuch as the work was necessarily done at night, upon a street which was frequently occupied by passing vehicles of various kinds, and as the necessary guy ropes which extended into the street must be fastened when they were in danger of collision with a passing vehicle, if unobserved in the darkness by the driver of the vehicle, it was the duty of the defendant to take such precautions against injury to his employees as to render the place of their work reasonably safe. The court charged upon the duty of the defendant as follows:

"Did the defendants fulfill their duty, which was to provide what was reasonably safe and proper by way of precaution from such a thing as this mail wagon, or anything of that sort, coming along? If they did—did everything that was reasonable in that behalf—you may return a verdict for the defendants, because, if they did, that is enough. That is all they were required to do."

The defendant insists that the rule of law which directs the master to provide his servant "with a reasonably safe place to work in, having reference to the character of the employment in which the servant is engaged," is inapplicable, because the street was a safe place, and the rule as to safe places does not apply when the place originally furnished is safe, and becomes unsafe in the progress of the work, or because of the manner in which the work is done. The argument rests upon the incorrect assumption that the place originally furnished was safe. The place was an avenue extensively used for travel, in which a substantial shed was to be erected at night by the use of derricks secured by ropes stretching somewhere in the avenue. It was eminently unsafe unless protected either by danger signals or watchmen. It is said, however, that when the workmen began work sufficient appliances in the way of lamps were furnished, and that it became unsafe by the way in which the work was done.

The place could not be reasonably safe when the workmen began their night's work unless an adequate system was adopted for their protection against dangers which were easily to be anticipated; neither could danger spring out of sudden exigencies, or sudden neglect or mistake of a foreman or workman. The negligence, if it existed, arose from the insufficiency of the means for the protection of the workmen which were originally adopted.

The defendant's assignments of error seek to introduce into the case the doctrine of nonliability for an injury caused by a coservant, and it is urged that the danger was created by the workmen themselves; for did not appear that there was a necessity for tying the guy lines on the other side of the street, and that occasion for warning or signals arose only in consequence of the act of the men in thus extending the

ropes. The defect in the argument is a continuance of the omission to recognize the ordinary necessity for the protection of the employees, and that the absolute duty of the master to provide a safe place is not avoided by the neglect of his representative or servants to do the things which will obviously prevent the known original danger.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—LAW OF PLACE WHERE INJURY WAS RECEIVED TO GOVERN—NEGLIGENCE—ASSUMPTION OF RISK—*Leazott v. Boston and Maine Railroad Co.*, 45 *Atlantic Reporter*, page 1084.—Suit was brought by Victor Leazott against the above-named railroad company to recover damages for injuries incurred while in its employ. The accident occurred in the State of Massachusetts and was occasioned by the breaking of a brake rod, which had a defect in it that had existed for some time but was not readily discoverable by the plaintiff. The car to which the rod was attached belonged to another railroad company and had been received by the Boston and Maine at Worcester, Mass. The default and negligence complained of was the failure of the defendant company to inspect the brake when the car was received by said company. In the supreme court sitting in Hillsboro County, N. H., where the case was heard, a verdict was rendered in favor of the plaintiff and the case was carried before the law term of said court upon exceptions. The decision of said court was rendered July 28, 1899, and the exceptions were sustained and a judgment rendered for the defendant company. From the opinion of the court, delivered by Judge Young, the following is taken:

The rights of parties in actions of tort are so far governed by the *lex loci* that whatever would be a defense to an action where the cause arose is a defense here. Inspection was the only duty which the law of Massachusetts imposed upon the defendants, for the plaintiff's benefit, in respect of this car; and they performed this duty if they furnished competent, sufficient, and suitable inspectors, acting under proper superintendence, rules, and instructions. The defendant's habitual neglect to inspect the brakes on cars which they received from connecting lines was the only evidence of their failure to perform this duty, and, while this is evidence of the defendant's negligence, it is not of itself sufficient to establish their liability; for the burden is on the plaintiff to show all the facts necessary to constitute his cause of action, and one of these facts is that the accident was not caused by a risk which he assumed when he entered the defendant's employment. A servant assumes the risk arising from all the ordinary dangers of his employment, of which he either knows or might have known by the exercise of due care; and this includes any risk arising from the negligent performance of the master's duties, if the servant knows of this danger, and voluntarily remains in the master's employment. Upon this point the law is the same both in this State and in Massachusetts.

The plaintiff was familiar with his work, and with the defendant's system of inspection. He knew that they never made any test to discover the strength of brake rods on foreign cars. The danger from insufficient brake rods on cars of this kind is so apparent that no man of ordinary prudence could fail to see and appreciate it; and the plaintiff, by voluntarily remaining in the defendant's employment after he knew of this danger, must be held to have assumed the risk. Verdict set aside. Judgment for the defendants.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—MASTERS' DUTY—CONTRIBUTORY NEGLIGENCE—*New Orleans and Northeastern Railroad Co. v. Clements*, 100 *Federal Reporter*, page 415.—One E. T. Clements was night foreman in the switch yards of the above-named railroad company at Meridian, Miss. About 10 o'clock at night certain flat cars of another road arrived in the yards and were inspected by the regular inspectors, after which Clements had an engine attached hereto and started to move them. After they had started and were moving slowly, he observed that a brake was set on one car, and, climbing on the next car, he started to step from one to the other—reaching forward and taking hold of the brake wheel as he did so. The nut was gone from the top of the brake rod and the wheel came loose, causing him to fall between the cars, and he was run over and his leg crushed. He brought suit against the railroad company for damages, and in the United States circuit court for the southern district of Mississippi a judgment in his favor was rendered. The railroad company brought the case before the United States circuit court of appeals for the fifth circuit, upon a writ of error, and said court rendered its decision February 28, 1900, affirming the judgment of the lower court. Circuit Judge Pardee delivered the opinion of the court of appeals, after reciting and commenting upon certain instructions and charges which the railroad company requested the court to give to the jury and which the court refused to do he continued in the following language:

The rule sought to be presented by these instructions and charges is, while it is the duty of the railroad company to make proper selection and look after the condition of cars that it calls upon its employees to use, when the railroad company has appointed proper capable inspectors, and provided by its rules that these inspectors make due and proper inspection, and the inspectors have made such action, then the duty of the railroad company is performed, and negligence can be imputed to the company because the inspection has not been thorough and complete.

At this point the judge cites and quotes from numerous decisions of courts, and then continues as follows:

Under the light of these decisions, we understand the law to be that, as to latent defects in machinery furnished by railroad companies for the

employees to use, the railroad companies are insurers in all cases where the employee, by reason of his employment or the circumstances of the case, has no full opportunity, before using the machinery in question, to observe and note the patent defect; and the rule is the same with regard to all defects that can be discovered on proper examination and inspection.

In the present case the defendant in error [Clements] was not called upon by his duty to make any particular inspection of the cars turned over to him after the regular inspection. As to the particular defect which resulted in his injury, the proof is clear that although the defect was patent, and could and would have been readily noticed by any employee called ordinarily to use the same, the defendant was called upon to use it at night, in an emergency, and without opportunity to examine or inspect the same. It may be, as counsel for plaintiff in error argued, that he knew that the car had lately come in from another road; that after he reached the platform of the car he could, with the slightest movement of his hand, or instantaneous movement of his lantern, have discovered the condition of the brake (that is, the absence of the nut); and that upon that discovery he could have used the brake ("let it off") in such a way that he would not have been injured. But the trouble is, he had no opportunity to examine the condition of the brake with his hand, or by any movement of the lantern. In the line of his duty, he was climbing on top of the car as it was moving, and he reached for and caught the brake to support himself preparatory to using the same; and to say, under such circumstances, that he should have made a preliminary inspection, is contrary to both reason and authority. On the whole case—and we have examined it with great care—we are constrained to hold that the record shows no reversible error on the trial, and the judgment must be affirmed.

TRADE UNIONS—CONSPIRACY AGAINST PERSONS NOT MEMBERS—*Plant et al. v. Woods et al.*, 57 *Northeastern Reporter*, page 1011.—Action was brought by one Plant and others, as plaintiffs, against one Woods and others, as defendants, to restrain the defendants from interfering with the plaintiffs in their employment and asking that an injunction to that effect be issued. In the superior court of Hampden County, Mass., a decree was rendered in favor of the plaintiffs, and the defendants appealed to the supreme judicial court of the State, which rendered its decision September 6, 1900, and practically sustained the decision of the lower court, although modifying the terms of the injunction which had been issued.

The facts of the case are stated in the opinion of the court, which was delivered by Judge Hammond, and from the same the following is quoted:

This case arises out of a contest for supremacy between two labor unions of the same craft, having substantially the same constitution and by-laws. The chief difference between them is that the plaintiff union is affiliated with a national organization having its headquarters in Lafayette, in the State of Indiana, while the defendant union is affil-

ated with a similar organization having its headquarters in Baltimore, in the State of Maryland. The plaintiff union was composed of workmen who, in 1897, withdrew from the defendant union.

The contest became active early in the fall of 1898. In September of that year the members of the defendant union declared "all painters not affiliated with the Baltimore headquarters to be nonunion men," and voted "to notify bosses" of that declaration. The manifest object of the defendants was to have all the members of the craft subjected to the rules and discipline of their particular union, in order that they might have better control over the whole business, and to that end they combined and conspired to get the plaintiffs, and each of them, to join the defendant association, peaceably, if possible, but by threat and intimidation if necessary. Accordingly, on October 7, they voted that, "If our demands are not complied with, all men working in shops where Lafayette people are employed refuse to go to work." The plaintiffs resisting whatever persuasive measures, if any, were used by the defendants, the latter proceeded to carry out their plan in the manner fully set forth in the master's report.

The general method of operations was substantially as follows: A duly authorized agent of the defendants would visit a shop where one or more of the plaintiffs were at work, and inform the employer of the action of the defendant union with reference to the plaintiffs, and ask him to induce such of the plaintiffs as were in his employ to sign applications for reinstatement in the defendant union. As to the general nature of these interviews the master finds that the defendants have been courteous in manner, have made no threats of personal violence, have referred to the plaintiffs as nonunion men, but have not otherwise presented them as men lacking good standing in their craft; that they have not asked that the Lafayette men be discharged, and in some cases have expressly stated that they did not wish to have them discharged, but only that they sign the blanks for reinstatement in the defendant union. The master, however, further finds, from all the circumstances under which those requests were made, that the defendants intended that employers of Lafayette men should fear trouble in their business if they continued to employ such men, and that employers to whom these requests were made were justified in believing that a failure on the part of their employees who were Lafayette men to sign such reinstatement blanks, and a failure on the part of the employers to discharge them for not doing so, would lead to trouble in the business of the employers in the nature of strikes or a boycott; and the employers to whom these requests were made did believe that such results would follow, and did suggest their belief to the defendants, the defendants did not deny that such results might occur; that strikes which did occur appear to have been steps taken by the defendants to obtain the discharge of such employees as were Lafayette men who declined to sign application blanks for reinstatement; that the defendants did not in all cases threaten a boycott of the employer's business, but did threaten that the place of business of at least one employer would be left off from a so-called "fair list" to be published by the Baltimore union. The master also found that, from all evidence presented, the object which the Baltimore men and the defendant association sought to accomplish in all the acts which were tried to was to compel the members of the Lafayette union to join the Baltimore union, and as a means to this end they caused strikes to

be instituted in the shops where strikes would seriously interfere with the business of the shops, and in all other shops they made such representations as would lead the proprietors thereof to expect trouble in their business.

We have, therefore, a case where the defendants have conspired to compel the members of the plaintiff union to join the defendant union, and, to carry out their purpose, have resolved upon such coercion and intimidation as naturally may be caused by threats of loss of property by strikes and boycotts, to induce the employers either to get the plaintiffs to ask for reinstatement in the defendant union, or, that failing, then to discharge them. It matters not that this request to discharge has not been expressly made. There can be no doubt, upon the findings of the master and the facts stated in his report, that the compulsory discharge of the plaintiffs in case of noncompliance with the demands of the defendant union is one of the prominent features of the plan agreed upon.

It is well to see what is the meaning of this threat to strike, when taken in connection with the intimation that the employer may "expect trouble in his business." It means more than that the strikers will cease to work. That is only the preliminary skirmish. It means that those who have ceased to work will by strong, persistent, and organized persuasion and social pressure of every description do all they can to prevent the employer from procuring workmen to take their places. It means much more. It means that, if these peaceful measures fail, the employer may reasonably expect that unlawful physical injury may be done to his property; that attempts in all the ways practiced by organized labor will be made to injure him in his business, even to his ruin, if possible; and that by the use of vile and opprobrious epithets and other annoying conduct, and actual and threatened personal violence, attempts will be made to intimidate those who enter or desire to enter his employ; and that whether or not all this be done by the strikers or only by their sympathizers, or with the open sanction and approval of the former, he will have no help from them in his efforts to protect himself. However mild the language or suave the manner in which the threat to strike is made under such circumstances as are disclosed in this case, the employer knows that he is in danger of passing through such an ordeal as that above described, and those who make the threat know that as well as he does.

Such is the nature of the threat, and such the degree of coercion and intimidation involved in it. If the defendants can lawfully perform the acts complained of in the city of Springfield, they can pursue the plaintiffs all over the State in the same manner, and compel them to abandon their trade, or bow to the behests of their pursuers. It is to be observed that this is not a case between the employer and employed, or, to use a hackneyed expression, between capital and labor, but between laborers all of the same craft, and each having the same right as any one of the others to pursue his calling. In this as in every other case of equal rights the right of each individual is to be exercised with due regard to the similar right of all others, and the right of one [may] be said to end where the right of another begins. The right involved is the right to dispose of one's labor with full freedom. This is a legal right, and it is entitled to legal protection. The rule is stated with care and discrimination by Wells, J., in *Walker v. Cronin*, 107 Mass., 555: "Everyone has a right to enjoy the fruits and advan-

tages of his own enterprise, industry, skill, and credit. He has no right to be protected against competition, but he has a right to be free from malicious and wanton interference, disturbance, or annoyance. If disturbance or loss come as the result of competition, or the exercise of like rights by others, it is *damnum absque injuria*, unless some superior right by contract, or otherwise, is interfered with. But if it come from the merely wanton or malicious acts of others, without the justification of competition, or the service of any interest or lawful purpose, it then stands upon a different footing." (In this case the acts complained of were calculated to cause damage to the plaintiffs, and did actually cause such damage; and they were intentionally done for that purpose. Unless, therefore, there was justifiable cause, the acts were malicious and unlawful.)

The purpose of these defendants was to force the plaintiffs to join the defendant association, and to that end they injured the plaintiffs in their business, and molested and disturbed them in their efforts to work at their trade. The defendants might make such lawful rules as they please for the regulation of their own conduct, but they had no right to force other persons to join them. The necessity that the plaintiffs should join this association is not so great, nor is its relation to the rights of the defendants, as compared with the right of the plaintiffs to be free from molestation, such as to bring the acts of the defendant under the shelter of the principles of trade competition. Such acts are without justification, and therefore are malicious and unlawful, and the conspiracy thus to force the plaintiffs was unlawful.

UNLAWFUL SUSPENSION FROM MEMBERSHIP IN TRADE UNION—*Cotton Jammers' and Longshoremen's Association No. 2 v. Taylor*—56 *Southwestern Reporter*, page 553.—Action was brought against the above-named labor organization by James A. Taylor for damages for his alleged wrongful and malicious suspension from membership in said organization. In the county court of Galveston County, Tex., a judgment was rendered in his favor and the defendant organization appealed the case to the court of civil appeals of the State which rendered its decision April 2, 1900, and reversed the judgment of the lower court.

The facts in the case were clearly stated by Judge Gill, who delivered the opinion of the court, and from said opinion the following is taken:

The association is a corporation organized for the purpose of securing work for its members, for maintaining fair wages for their labor, and to supply certain tools for their use. These tools were purchased with funds derived from assessments upon the membership, and each member was entitled to their use, and to such other benefits as inured to him as a member of the body, under certain prescribed rules and regulations. One rule provided that any member who should work for a less sum than 40 cents per hour should be subject to a fine of \$10 and suspension from the association for one year, during which time he should be deprived of the benefits of membership. Appellee was a member of the association. At a regular meeting held July 28,

1897, he was, by resolution, fined \$10, and suspended for one year, for the alleged reason that he, with certain other members named in the resolution, had worked for the Lone Star Line at a less sum per hour than the sum prescribed in the rule above named. This resolution was carried by the requisite vote, and the suspension resulting therefrom was enforced against appellee. He was present when this action was taken, but had received no previous notice of its purpose to suspend him, and did nothing at the time which amounted to a waiver of such notice. On the contrary, he protested against the summary nature of the proceedings, and demanded the right to be heard; but his protest was ignored. As to whether, at the time of this action, there was in existence any rule prescribing the method of suspension or expulsion, the evidence is conflicting. It was shown that the association had formerly been incorporated under a different name, but had forfeited its charter by nonpayment of the franchise tax; that the old concern had by-laws for the government of the body in the suspension and expulsion of members, and that such by-laws provided for notice and a hearing. It was also shown that a committee was then out, engaged in the task of formulating by-laws for the new corporation. It was contended that the by-laws of the defunct corporation controlled the new body, and there was some evidence that it had been acting thereunder, though none that they had been formally adopted. It was shown that the suspension of appellee was final, if valid, he having no right to appeal to any other tribunal connected with the order. His right of action depends, therefore, upon the invalidity of the action of the association in suspending him. Appellant contends that the suspension was valid and binding in the absence of by-laws providing for notice and trial and prescribing the mode of procedure.

The case before us is one involving valuable rights. In such cases the weight of authority tends to support the doctrine that a by-law providing for expulsion without notice or trial will be held invalid. A by-law, to be valid, must be reasonable. In this case, if the association was in fact acting under the by-laws of the old corporation, the suspension was void, because their provisions were ignored. If the old by-laws were not operative, then no by-law existed providing rules of procedure in such cases, and appellee was entitled to reasonable notice of the nature of the charges against him, and an opportunity to be heard.

The contention of appellant that the act of expulsion was binding upon appellee is not tenable. He would be entitled to a judgment for such damages as proximately resulted from the wrong.

By the eighth assignment of error appellant complains of the refusal of the trial court to sustain a special exception to the petition. The exception is that the petition fails to disclose in what manner appellee was deprived of the use of the tools, and how and in what manner his suspension affected his right to engage in remunerative labor, or prevented him from procuring work. The petition is defective in the respects pointed out, and the court erred in refusing to sustain the exception. It is impossible to ascertain from the petition what connection existed between his membership in the association and his means of obtaining work, or in what way he was deprived of an opportunity to secure employment. For the errors indicated, the judgment is reversed, and the cause remanded.

LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE JANUARY 1, 1896.

[The Second Special Report of the Department contains all laws of the various States and Territories and of the United States relating to labor in force January 1, 1896. Later enactments are reproduced in successive issues of the Bulletin from time to time as published.]

NORTH CAROLINA.

ACTS OF 1899.

CHAPTER 373.—*Bureau of labor and printing.*

SECTION 1. Chapter one hundred and thirteen of the laws of eighteen hundred and eighty-seven [creating a bureau of labor statistics] is hereby repealed.

SEC. 2 (as amended by chapter 539, acts of 1899). A bureau of labor and printing is hereby created and established, the duties of which bureau shall be exercised and discharged by a commissioner, who shall be designated as "commissioner of labor and printing" and by an assistant, who shall be appointed by said commissioner and who shall be a practical printer. The said commissioner shall be elected by the joint ballot of the members of the senate and house of representatives of the general assembly of North Carolina. The term of office of said commissioner shall begin on the fifteenth day of March next after his election, and he shall hold his office until January, nineteen hundred and one, when other State officers are qualified. At the next general election the commissioners [commissioner] of labor and printing shall be elected for a term of four years by the people in the same manner as is provided for the election of secretary of state. The office of said bureau shall be kept in the city of Raleigh and the same shall be provided for as other public officers [offices] by the State.

SEC. 3. Said commissioners [commissioner] shall receive a salary of one thousand five hundred dollars per annum, payable monthly; and said assistant commissioner shall receive a salary of nine hundred dollars per annum, payable monthly, and they shall also receive their actual traveling expenses while traveling for the purpose of collecting the information and statistics provided for in this act. And said assistant commissioner shall perform the duties of the said commissioner in his absence from office or in case of a vacancy therein.

SEC. 4. Said commissioner aided by said assistant commissioner shall collect and collate information and statistics concerning labor and its relation to capital, the hours of labor, the earnings of laborers and their educational, moral and financial condition; and the best means of promoting their mental and moral and material welfare; shall also collect [and] collate information and statistics concerning the various mining, milling and manufacturing industries in this State, their location, capacity and actual output of manufactured products, the kind and quantity of raw material annually used by them and the capital invested therein; shall also collect and collate information and statistics concerning the location, estimated and actual horse power and conditions of valuable water powers developed and undeveloped in this State; also concerning farm lands and farming, the kinds, character and quantity of the annual farm products in this State; also of timber lands and timbers, truck gardening, dairying and such other information and statistics concerning the agricultural, industrial welfare of the citizens of this State as he may deem to be of interest and benefit to the public, and shall all [also] perform the duties prescribed in chapter fifteen, public laws of eighteen hundred and ninety-seven.

SEC. 5. Said commissioner, aided by said assistant commissioner, shall carefully examine all printing and binding done for the State, or any department thereof by the public printer, and shall certify that the workmanship of said printing and binding is properly executed and that the accounts rendered by the public printer for the same are accurate and just before the auditor shall issue any warrant for the payment thereof.

SEC. 6. Said commissioner shall annually publish a report embodying therein such information and statistics as he may deem expedient and proper, which report shall

be printed and paid for by the State just as the report [reports] of other public officers are printed and paid for, the number of copies of said report to be printed be designated by said commissioner; the distribution of the reports will be paid from the general fund and not from the appropriation; said commissioner shall or cause to be sent a copy of said report to every newspaper in this State and also to each member of the general assembly, a copy to each of the several State county officers, a copy to each labor organization in the State and a copy to any citizen who may apply for the same either in person or by mail, and he may also send a copy to such officers of other States and Territories and to such corporations, individuals in other States and Territories as may apply for the same or as he may think proper. He shall also make a full report to the governor as other State officers are required to do, embodying therein such recommendation as he may deem calculated to promote the efficiency of his department.

Sec. 7. For carrying out the provisions of this act the sum of three thousand five hundred dollars (\$3,500) annually is hereby appropriated to be paid by the State treasurer out of any funds not otherwise specifically appropriated, and said commissioner when money is required for the use of his said department shall certify to the State auditor the amount required, and the auditor shall thereupon draw his warrant upon the treasurer for the same.

Sec. 8. All laws and clauses of laws in conflict with the provisions of this act are hereby repealed.

Sec. 9. This act shall be in force from and after its ratification.

Ratified the 3d day of March, A. D. 1899.

CHAPTER 410.—*Making labor day a legal holiday.*

SECTION 1. Section three thousand seven hundred and eighty-four of the code is hereby amended by inserting at the end of line four of said section the following words, to wit: "And the first Thursday in September."

Sec. 2. This act shall be in force from and after its ratification.

Ratified the 6th day of March, A. D. 1899.

CHAPTER 507.—*Protection of employees as voters.*

SECTION 54.—Any person who shall discharge from employment, withdraw patronage from or otherwise injure, threaten, oppress or attempt to intimidate any qualified voter of this State because of the vote such voter may or may not have cast in an election shall be guilty of a misdemeanor.

Sec. 88. All laws and clauses of laws in conflict with this act are hereby repealed.

* * *

Sec. 89. This act shall be in force from and after its ratification.

Ratified the 6th day of March, A. D. 1899.

CHAPTER 581.—*Convict labor.*

SECTION 8.—All prisoners confined in the county jail under a final sentence of the court for crime or imprisonment for nonpayment of costs or fines or under final judgment in cases of bastardy, or under the vagrant acts, all insolvents who shall be imprisoned by any court in said county for nonpayment of costs, and all persons sentenced in said county to the State prison for a term less than ten years shall be worked on the public roads of the county: *Provided*, That the commissioners of the county may arrange with the commissioners of any neighboring county or counties for such an exchange of prisoners during alternate months or years as will enable each such cooperating county to thereby increase the number of prisoners at work on its public roads at any given time. And upon application of the said road superintendent of the county or that of the chairman of the board of county commissioners, the judge of the superior court or the judge of the criminal court, the justices of the peace and the principal officer of any municipal or any other inferior court, it shall be the duty of the said judge or justice of the peace or said principal officer to assign such persons convicted in his court to said road superintendent for work on the public roads of said county; all such convicts to be fed, clothed and otherwise cared for at the expense of the county: *Provided further*, That in case of serious physical disability, certified to by the county physician, persons convicted in said superior, criminal or inferior courts in the county may be sentenced to the penitentiary or to the county jail.

Sec. 9. When the commissioners of any county shall have made provisions for the expense of supporting and guarding while at work on the public roads a larger num-

ber of prisoners than can be supplied from that county, upon the application of the commissioners of said county to the judges of the superior and criminal courts presiding in adjoining counties or any other county or counties in the same or adjoining judicial districts which do not otherwise provide for the working of their own convicts on their own public roads, may sentence such able-bodied male prisoners as are described in section eight of this act from such adjoining counties or other counties in the same and adjoining judicial districts to work on the public roads of said county or counties applying for the same in the order of their application; and the cost of transporting, guarding and maintaining such prisoners as may be sent to any such county applying for the same, shall be paid by the county applying for and receiving them out of the road fund of each such county: *Provided*, That any and all such prisoners from such other counties may at any time be returned to the keeper of the common jail of such counties at the expense of the county having received and used them.

SEC. 28. All laws and parts of laws in conflict with this act are hereby repealed.
* * *

SEC. 29. This act shall be in force from and after its ratification.
Ratified the 7th day of March, A. D. 1899.

CHAPTER 628.—*Convict labor.*

SECTION 1. * * * The justice of the peace before whom a conviction shall be had shall in his judgment sentence any vagrant or vagrants to work out his sentence on the public roads or highways of the county in which such conviction is had.

SEC. 2. The boards of commissioners of the various counties shall in their discretion make provisions by such rules and regulations as they may deem necessary and lawful for the working of convicts upon the public roads or highways for their counties, and it shall be lawful for any justice of the peace or judge holding court in such counties to sentence to imprisonment and hard labor on the public roads for such terms as are now provided by law for their imprisonment in the county jail or in the State prison the following classes of convicts:

First. All persons convicted of offenses the punishment whereof would otherwise be wholly or in part imprisonment in the common jail.

Second. All persons convicted of crimes the punishment whereof would otherwise be wholly or in part punishment in the penitentiary for a term not exceeding two years.

SEC. 3. The convicts sentenced to hard labor upon the public roads under the provisions of this act shall be under the control of the commissioners of the county, and said commissioners shall have power to enact all needful rules and regulations for the successful working of all convicts upon such public roads and highways.

SEC. 4. This act shall apply only to the counties of Pitt, Edgecombe, Wilson, Jackson, Granville, Stanley, and Swain.

SEC. 5. This act shall be in force from and after its ratification.

Ratified the 8th day of March, A. D. 1899.

WASHINGTON.

ACTS OF 1899.

CHAPTER 23.—*Blacklisting.*

SECTION 1. Every person in this State who shall willfully and maliciously, send or deliver, or make or cause to be made, for the purpose of being delivered or sent or art with the possession of any paper, letter or writing, with or without name signed hereto, or signed with a fictitious name, or with any letter, mark or other designation, or publish or cause to be published any statement for the purpose of preventing any other person from obtaining employment in this State or elsewhere, and every person who shall willfully and maliciously "blacklist" or cause to be "blacklisted" any person or persons, by writing, printing or publishing, or causing the same to be done, the name, or mark, or designation representing the name of any person in any paper, pamphlet, circular or book, together with any statement concerning persons so named, or publish or cause to be published that any person is a member of any secret organization, for the purpose of preventing such person from securing employment, or who shall willfully and maliciously make or issue any statement or paper that will tend to influence or prejudice the mind of any employer against the person of such person seeking employment, or any person who shall do

any of the things mentioned in this section for the purpose of causing the discharge of any person employed by any railroad or other company, corporation, individual or individuals, shall, on conviction thereof, be adjudged guilty of misdemeanor and punished by a fine of not less than one hundred dollars nor more than one thousand dollars, or by imprisonment in the county jail for not less than ninety days nor more than one year, or by both such fine and imprisonment.

Approved March 3, 1899.

CHAPTER 35.—*Safety appliances on railroads.*

SECTION 1. Any person or persons, railroad companies or corporations, owning or operating a railroad or railroads in this State, shall be and are hereby required to, before the first day of October, 1899, to so adjust, fill, block and securely guard frogs, switches and guard rails on their roads as to protect and prevent the feet of employees and other persons from being caught therein.

SEC. 2. Any person or persons, railroad companies or corporations owning or operating a railroad or railroads in this State, shall be liable for any damage resulting from a failure to comply with the provisions of this act; such damages to be recovered by the parties entitled to recover as provided in sections 137, 138 and 139 of volume 2 of Hill's Annotated Codes and Statutes of Washington, being sections 4827, 4828 and 4829, Ballinger's Annotated Codes and Statutes of Washington.

SEC. 3. Any person or persons, railroad companies or corporations, owning or operating any railroad in this State, failing to comply with the provisions of this act within the time limited, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined in any sum not less than five hundred dollars nor more than two thousand dollars.

Approved March 6, 1899.

CHAPTER 77.—*Examination, licensing, etc., of horseshoers.*

SECTION 1. No person shall practice horseshoeing either as a master horseshoer or journeyman horseshoer for hire in any city of the first class of this State unless he is duly registered as hereinafter provided, in a book kept for that purpose in the office of the city clerk of the city in which he practices.

SEC. 2. The city clerk of every city of the first class in this State, shall keep a book in his office to be known as the "master's and journeymen's horseshoers' register," in which shall be recorded the names of all master and journeyman horseshoers entitled to continue the practice of horseshoeing in such city.

SEC. 3. Any person who at the time of the passage of this act is practicing as a master or journeyman horseshoer in this State may register within sixty (60) days after the passage of this act after making and filing with the clerk of the city of the first class in which he practices, an affidavit stating that he was practicing horseshoeing at the time of the passage of this act, and such registration shall exempt him from the provisions of this act requiring an examination. No person shall be entitled to register as a master or journeyman horseshoer without presenting a certificate of satisfactory examination from a board of examiners, as provided for in section 5 of this act, and whose qualifications for examination shall be that he has served an apprenticeship at horseshoeing for at least three years: *Provided*, That this section shall not be so construed as to prohibit any person who has made application for examination, to practice horseshoeing under the direct supervision of a person who has passed such examination, while the board of examiners is acting upon or deferring action upon such application.

SEC. 4. In every city affected by this act there shall be appointed a board of examiners, consisting of one veterinary and two master horseshoers and two journeymen horseshoers, which shall be called "horseshoers' board of examiners," who shall be residents of such city, and whose duty it shall be to carry out the provisions of this act. The members of said board shall be appointed by the mayor of such city, and the term of office shall be for five years, except that the members of said board first appointed shall hold office for the term of one, two, three, four, and five years, as designated by the mayor and until their successors shall be duly appointed. The board of examiners shall have a regular place of meeting, and shall hold sessions for the purpose of examining applicants desiring to practice horseshoeing as a master or journeyman horseshoer in each city affected by this act, not later than three days after any applications have been presented to them, and shall grant a certificate to any person showing himself qualified to practice, and the board shall receive as compensation a fee not exceeding two dollars from each person examined. Three members of said board shall constitute a quorum.

SEC. 5. Every applicant who shall have complied with the provisions of sections 4 and 5 of this act, shall be admitted to registration and shall pay the city treasurer of the city in which he desires to register the sum of fifty cents, which shall be received as full compensation for such registration.

SEC. 6. Any person who shall present to the clerk for the purpose of registration any certificate which has been fraudulently obtained, or shall in any wise knowingly violate or neglect to comply with any of the provisions of this act, shall be guilty of a misdemeanor and shall, for each and every offense, be punished by a fine of not less than ten dollars or more than fifty dollars, or by imprisonment in the county jail for a term of not less than ten days or more than thirty days, or by both fine and imprisonment.

Approved March 13, 1899.

CHAPTER 101.—*Hours of labor on public works.*

SECTION 1. Hereafter eight hours in any calendar day shall constitute a day's work on any work done for the State or any county or municipality within the State, subject to conditions hereinafter provided.

SEC. 2. All work done by contract or subcontract on any building or improvements or works on roads, bridges, streets, alleys or buildings for the State or any county or municipality within the State, shall be done under the provisions of this act: *Provided*, That in cases of extraordinary emergency such as danger to life or property, the hours for work may be extended, but in such case the rate of pay for time employed in excess of eight hours of each calendar day, shall be one and one-half times the rate of pay allowed for the same amount of time during eight hours' service. And for this purpose this act is made a part of all contracts, subcontracts or agreements for work done for the State or any county or municipality within the State.

SEC. 3. Any contractor, subcontractor, or agent of contractor or subcontractor, foreman or employer who shall violate the provisions of this act, shall be deemed guilty of misdemeanor and upon conviction shall be fined in a sum not less than twenty-five dollars nor more than two hundred dollars, or with imprisonment in the county jail for a period of not less than ten days nor more than ninety days, or both such fine and imprisonment, at the discretion of the court.

Approved March 13, 1899.

CHAPTER 140.—*Employment of children.*

SECTION 5. No child under the age of fifteen years shall be employed in any manufacturing, mechanical or mercantile establishment, or by any telegraph or telephone company in this State, except during the vacations of the public schools of the city in which such child resides, unless during the twelve months next preceding such employment, he shall have attended school as provided for in section one of this act, or has already attained a reasonable proficiency in the common school branches for the first eight years as outlined in the course of study for common schools of the State of Washington, or shall have been excused by the board of directors of the city in which such child resides; nor shall such employment continue unless such child shall attend school each year, or until he shall have acquired the elementary branches of learning taught in public schools as above provided.

SEC. 6. No child under the age of fifteen years shall be so employed who does not present a certificate made by or under the direction of the board of directors of the district in which such child resides, of his compliance with the requirements of section five of this act; and said certificate shall also give the place and date of birth of such child as nearly accurate as may be; and every owner, superintendent or overseer of any establishment or company employing any such child shall keep such certificate on file so long as such child is employed therein. The form of said certificate shall be furnished by the superintendent of public instruction.

SEC. 7. Every owner, superintendent, or overseer of any such establishment or company who employs or permits to be employed any child in violation of any of the provisions of the two next preceding sections, and every parent or guardian who permits such employment, shall be fined not exceeding twenty-five dollars.

SEC. 8. The truant officers shall, at least once in every school term, and as often as the board of directors shall require, visit the establishments or companies employing such children in their respective cities, and ascertain whether the provisions of the three next preceding sections hereof are duly observed, and report all violations in proof to the said board.

SEC. 9. The truant officers shall demand the names of the children under fifteen years of age employed in such establishments or companies in their respective cities,

and shall require the certificates of age and school attendance, prescribed in section 6 of this act, to be produced for their inspection; and a refusal to produce such certificate shall be punished by a fine not exceeding twenty-five dollars.

SEC. 10. Every owner, superintendent or overseer of any such establishment or company who employs or permits to be employed therein a child under sixteen years of age who can not write his name, age and place of residence legibly, while the public schools in the city where such child lives are in session, shall for every such offense be fined not exceeding twenty-five dollars.

Approved March 14, 1899.

WISCONSIN.

ACTS OF 1899.

CHAPTER 28.—*State reformatory—Manual training—Convict labor.*

SECTION 1. Chapter 201a of the Revised Statutes of 1898, entitled "Of the State Reformatory," is hereby amended to read as follows:

ORGANIZATION: Section 4944b. * * * It [the State board of control] may also maintain therein a manual training school, may cause the inmates to be instructed in trades, and may carry on in the institution any industry not prohibited by law, employing for that purpose the labor of the inmates confined therein.

Approved March 18, 1899.

CHAPTER 77.—*Seats for female employees.*

SECTION 1. Every person or corporation employing females in any manufacturing, mechanical or mercantile establishment in the State of Wisconsin shall provide suitable seats for the females so employed, and shall permit the use of such seats by them when they are not necessarily engaged in the active duties for which they are employed.

SEC. 2. Any person or corporation who shall violate the provisions of this act shall, upon conviction thereof, be considered guilty of a misdemeanor and shall be punished by a fine of not less than ten dollars, nor more than thirty dollars for each and every offense.

SEC. 3. This act shall take effect and be in force from and after its passage and publication.

Approved March 30, 1899.

CHAPTER 79.—*Regulating the manufacture of cigars.*

SECTION 1. No shop or place wherein cigars are manufactured shall be located below the ground floor.

SEC. 2. Each employee in any shop or place wherein cigars are manufactured, shall, while actually employed, be allowed to use twenty square feet of surface space, unobstructed to the ceiling.

SEC. 3. Every room wherein cigars are manufactured shall contain at least seven hundred cubic feet of air space. It shall in every part be not less than eight feet in height, from floor to ceiling, every window shall have not less than twelve square feet in superficial area, and the entire area of window surface shall not be less than twelve per cent of the floor space of such room.

SEC. 4. Every room in which cigars are manufactured while work is carried on shall be so ventilated that the air shall not become impure and injurious to the health of the persons employed therein, and it shall whenever necessary, by the means of air shafts or other ventilation, be so changed as to render harmless all gases, dust and other impurities generated in the process of manufacturing cigars. All windows are to be kept open for thirty minutes before working hours and for thirty minutes after working hours.

SEC. 5. Every such shop or place in which one or more persons are employed and every such factory in which five or more persons are employed, shall be kept clean. The dust must be removed from work tables and floors once every day, the floors scrubbed at least once a week and one cuspidor provided for every two employees.

SEC. 6. No person under eighteen years of age shall be employed or permitted to work in a cigar shop or a cigar factory at manufacturing cigars for longer than eight hours a day or forty-eight hours a week.

SEC. 7. Where men and women are employed there shall be separate dressing rooms and water-closets for the different sexes.

SEC. 8. Any person violating any provision of this act shall be punished by fine not exceeding twenty-five dollars and no less than ten dollars for the first offense, and by fine not exceeding fifty dollars, and no less than twenty-five dollars for the second and each following offense.

SEC. 9. The factory inspector shall have full power and it shall be his duty to enforce all the provisions of this act, but no prosecution shall be instituted for any violation of sections 2, 3 and 4 unless the employer or manufacturer, or the firm has been notified by a notice sent in a registered letter for at least four weeks prior to a prosecution, requiring the necessary changes in the factory or workshop, and such request has not been complied with.

SEC. 10. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

SEC. 11. The provisions of this act shall take effect on and after the first day of July, 1900.

Approved March 30, 1899.

CHAPTER 152.—*Assistant factory inspectors.*

SECTION 1. The commissioner of labor and industrial statistics shall have power to appoint six suitable persons as assistant factory inspectors who shall perform their duties under his direction and who may be removed by him for cause.

SEC. 2. Each of the said assistant factory inspectors shall be paid a salary at the rate of one thousand dollars per annum together with necessary traveling expenses to be paid out of money in the general fund not otherwise appropriated.

SEC. 3. All acts and parts of acts conflicting with the provisions of this act are hereby repealed.

SEC. 4. This act shall take effect and be in force from and after its passage and publication.

Approved April 11, 1899.

CHAPTER 158.—*Duties of factory inspectors, etc.*

SECTION 1. Section 1021f of the Statutes of 1898, is hereby amended * * * so that said section * * * shall read as follows:

SECTION 1021f. The commissioner [of labor and industrial statistics], his deputy, the factory inspector and the assistant factory inspector may enter any factory, mercantile establishment or workshop in which laborers or women are employed, for the purpose of obtaining facts and statistics, examining the means of escape therefrom in case of fire and the provisions made for the health and safety of operatives or for suitable seats for women therein. If any such officer shall learn of any violation of or neglect to comply with the law in respect to the employment of children, the hours of labor for them or for women, or in reference to fire escapes or the safety of employees, or such seats for women, he shall give written notice to the owner or occupant of such factory, mercantile establishment or workshop, of such offense or neglect, and if the same is not remedied within thirty days after the service of such notice, such officer shall give the district attorney of the county in which such factory, mercantile establishment or workshop is situated, formal notice of the facts, whereupon that officer shall immediately institute the proper proceedings against the person guilty of such offense or neglect.

SEC. 2. This act shall take effect and be in force from and after its passage and publication.

Approved April 12, 1899.

CHAPTER 189.—*Emery wheels in factories and workshops.*

SECTION 1. All persons, companies or corporations operating any factory or workshop where emery wheels or emery belts of any description are used for polishing, either solid emery, leather, leather covered, felt, canvas, linen, paper, cotton or wheels or belts rolled or coated with emery or corundum, or cotton wheels used as buff, shall, when deemed necessary, by the factory inspector, assistant factory inspector, or any officers of the Bureau of Labor, provide such polishing wheels or belts with blowers or similar apparatus, which shall be placed over, beside or under such wheels or belts in such manner as to protect the person or persons using the same from the particles of the dust produced and caused thereby, and to carry away the dust arising from or thrown off by such wheels or belts while in operation, directly to the outside of the building or to some receptacle placed so as to receive and to confine such dust. *Provided*, That grinding machines upon which water is used at the

point of the grinding contact shall be exempt from the provisions of this act; and provided that this act shall apply only to those wheels or belts which are used for polishing and which are contained in the room or apartment usually denominated the polishing room, and which are used continuously therein; and provided further, That this act shall not embrace nor apply to such wheels or belts as can not be so equipped without impairing the convenient or necessary use thereof.

SEC. 2. No emery wheel or grindstone in any factory, mill or workshop, shall be used when the same is known to the person using the same to be cracked or otherwise defective, nor operated at a greater speed than indicated or guaranteed by its manufacturer of such emery wheel or grindstone.

SEC. 3. It shall be the duty of any person, company or corporation operating any such factory or workshop to provide or construct such appliances, apparatus, machinery or other things necessary to carry out the purpose of this act, as set forth in the preceding section, as follows: Each and every such wheel shall be fitted with a sheet or cast iron hood or hopper, of such form and so applied to such wheel or wheel that the dust or refuse therefrom will fall from such wheels, or will be thrown into such hood or hopper by centrifugal force, and be carried off by the current of air into a suction pipe attached to same hood or hopper.

SEC. 4. Each and every such wheel six inches or less in diameter shall be provided with a three-inch suction pipe; wheels six inches to twenty-four inches in diameter, with four-inch suction pipe; wheels from twenty-four inches to thirty-six inches in diameter, with five-inch suction pipe; and all wheels larger in diameter than those stated above shall be provided each with a suction pipe not less than six inches in diameter. The suction pipe from each wheel, so specified, must be full size as to the main trunk suction pipe, and the main suction pipe to which smaller pipes are attached shall, in its diameter and capacity, be equal to the combined area of such smaller pipes attached to the same, and the discharge pipe from the exhaust fan connected with the suction pipe or pipes shall be as large, or larger than the suction pipe.

SEC. 5. It shall be the duty of any person, company or corporation operating any such factory or workshop to provide the necessary fans or blowers to be connected with such pipe or pipes, as above set forth, which shall be run at a rate of speed as will produce a velocity of air in such suction or discharge pipes of sufficient force to carry away all dust discharged into the aforesaid hood or hopper. All branch pipes must enter the main trunk pipe at any angle of forty-five degrees or less; the main suction or trunk pipe shall be below the emery or buffing wheels, and as close to the same as possible, and to be either upon the floor or underneath the floor on which the machines are placed to which such wheels are attached. All bends, turns, and elbows in such pipes must be made with easy, smooth surfaces, having a radius in the throat of not less than two diameters of the pipe on which they are connected.

SEC. 6. The provisions of sections 4 and 5 shall not apply to existing mills, factories or workshops which, at the time of the passage of this act, have an appliance or appliances designed and used for the purpose of removing such dust from the polishing room, and which said appliance or appliances substantially effect such design.

SEC. 7. It shall be the duty of every factory inspector of this State, or his deputies to enter any factory or workshop in this State during working hours, and upon ascertaining the facts that the proprietors or managers of such factory or workshops have failed to comply with the provisions of this act, to make complaint of the same in writing before a justice of the peace or police magistrate having jurisdiction, who shall thereupon issue his warrant, directed to the owner, manager or director, in such factory or workshop, who shall be thereupon proceeded against for the violation of this act as hereinafter mentioned, and it is made the duty of the prosecuting attorney to prosecute all cases under this act.

SEC. 8. Any such person or persons or company, or managers, superintendents or directors of any such company or corporation, who shall have the charge or management of such factory or workshop, who shall fail to comply with the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof before any court of competent jurisdiction shall be punished by a fine of not less than twenty-five dollars, and not exceeding one hundred dollars.

SEC. 9. This act shall take effect and be in force from and after its passage and publication.

Approved April 14, 1899.

CHAPTER 213.—*Employment and intelligence offices and bureaus.*

SECTION 1. No person shall engage in the business of keeping an employment or intelligence bureau or office or agency for the purpose of hiring men to work for others, and receive a compensation for such hiring without first having obtained a

license so to do as hereinafter provided; any person or persons who shall establish or keep any office or place within said State, for the purpose of obtaining place or employment for laborers of any kind whatever, or for procuring or giving information concerning such places or employment to such laborers, or for procuring or giving information concerning such laborers to employers, shall be deemed a keeper of an employment or intelligence bureau, office or agency; and any person who shall engage in such business without such license, shall be guilty of a misdemeanor, and shall upon conviction thereof be punished by a fine not exceeding one hundred dollars or imprisonment in the county jail not exceeding ninety days or both.

SEC. 2. Any person who desires to engage in any such business may apply to the common council if such business be carried on in a city, or to the village council if in a village, or to the county board of the county in which such business is to be carried on if in the country, for such license, and pay into the treasury of such city, village or county, the sum of ten dollars and upon executing and delivering to such common council, village council or county board a bond in the penal sum of one thousand dollars with sufficient sureties, or in lieu thereof a surety bond of one thousand dollars, to be approved by such common council, village council or county board, he shall be entitled to such license. Each license shall designate the house in which the person licensed shall keep his office, giving street and number of the same, and the number of such license, and shall continue to be in force until the first day of May next ensuing the date thereof and no longer; *Provided always*, That the foregoing license fee shall be the same for any length of time whether issued for a year on the first day of May, or any fractional part thereof; and no license issued hereunder shall be transferred to any other person or persons whatever or inure to the benefit of any other person other than the licensee.

SEC. 3. The bonds shall run to the State of Wisconsin, and shall be conditioned for the payment of any damage that any person secured or engaged to labor for others by the obligor, may sustain by reason of any unauthorized act, fraud or misrepresentation on the part of such agent for such hiring. The bond shall be filed with the city clerk if approved by the common council, with the village recorder if approved by the village council, and with the county clerk if approved by the county board of any county. Any person licensed and having given bond as herein provided may, while continuing to reside or maintain his office at the place mentioned in such license, prosecute his said business in any part of the State.

SEC. 4. Every person hired or engaged to work for others by one so licensed as aforesaid, shall be furnished a written copy in duplicate of the terms of such hire or engagement, rate of wages or compensation, kind of service to be performed, length of time of such service, with full name and address of the person or persons, firm or corporation authorizing the hire of such person, one of the aforesaid copies to be delivered to the person or persons, firm or corporation for whom the contracted labor is to be performed, and the other to be retained by the person hired as aforesaid. And any person hired or engaged to work for others by one so licensed as aforesaid, who shall fail to get employment according to the terms of such contract of hire or employment, by reason of any unauthorized act, fraud or misrepresentation on the part of such agent, may bring an action upon said bond, and may recover in such action against the principal and sureties the full amount of his damages sustained by reason of such unauthorized act, fraud or misrepresentation, together with his costs, disbursements, in such action: *Provided however* that nothing contained herein shall apply to agencies conducted by women, for the purpose of securing employment for females only.

SEC. 5. This act shall take effect and be in force, from and after its passage and publication.

Approved April 19, 1899.

CHAPTER 224.—*Forgery, etc., of employer's letters of recommendation of employees and of receipts for dues of members of associations of railway employees.*

SECTION 1. Any person who shall falsely make, alter, forge or counterfeit any card or receipt of dues purporting to be given or issued by any association of railway employees, or by any of its officers to its members, with intent to injure, deceive or defraud, shall be punished as hereinafter provided.

SEC. 2. Any person who shall falsely make, alter, forge or counterfeit any letter or certificate purporting to be given by any corporation or person, or officer or agent of such corporation or person to an employee of such corporation or person at the time of such employee's leaving the service of such corporation or person, showing the capacity or capacities in which such employee was employed by such corporation or person, the date of leaving the service or the reason or cause of such leaving, with the intent to injure, deceive or defraud, shall be punished as hereinafter provided.

SEC. 3. Any person who shall utter, publish, pass or tender as true, or who shall have in his possession with intent to utter, publish, pass or tender as true, any false, altered, forged or counterfeited letter, certificate, card or receipt, the forging, altering or counterfeiting whereof is prohibited by either of the preceding sections of this act, with intent to injure, deceive or defraud, shall be punished as hereinafter provided.

SEC. 4. Any person violating any of the provisions of this act shall, upon conviction thereof, be punished by imprisonment in the State's prison or county jail not more than one year or by fine not exceeding two hundred dollars.

SEC. 5. This act shall take effect and be in force from and after its passage and publication.

Approved April 20, 1899.

CHAPTER 232.—*Factories and workshops—Sweating system.*

SECTION 1. No dwelling or building, or any room or apartment of itself, in, or connected with any tenement or dwelling or other building, shall be used except by the immediate members of the family living therein, for carrying on any process of making any kind of wearing apparel or goods for male and female wear, use, or adornment, or for the manufacture of cigars, cigarettes, or tobacco goods in any form, when such wearing apparel or other goods are to be exposed for sale, or to be sold by manufacturer, wholesalers or jobber, to the trade or by retail, unless such room or apartment shall have been made to conform to the requirements and regulations provided for in this act.

SEC. 2. Each such room or apartment used for the purposes aforesaid, shall be regarded as a workshop or factory, and shall be separate from and have no door, window or other opening into any living or sleeping room of any tenement or dwelling, and no such workshop or factory shall be used at any time for living or sleeping purposes, and shall contain no bed, bedding, cooking or other utensils, except what is required to carry on the work therein, and every such shop or factory shall have an entrance from the outside direct, and if above the first floor, shall have a separate and distinct stairway leading thereto, and every such workshop or factory, shall be well and sufficiently lighted, heated and ventilated by ordinary, or, if necessary, by mechanical appliance, and shall provide for each person employed therein, not less than two hundred and fifty cubic feet of airspace in daytime and four hundred cubic feet at night, and shall have suitable closet arrangements for each sex employed therein, as follows: Where there are ten or more persons, and three or more to the number of twenty, are of either sex, a separate and distinct water-closet, either inside the building, with adequate plumbing connections, or on the outside at least twenty feet from the building, shall be provided for each sex; when the number employed is more than twenty-five of either sex, there shall be provided an additional water-closet for such sex up to the number of fifty persons, and above that number in the same ratio, and all such closets shall be kept strictly and exclusively for the use of the employees and employer or employers of such workshop or factory; *Provided* that where more than one room is used under the direction of one employer, all such rooms are to be regarded as one shop, or factory, and every such workshop or factory shall be kept in a clean and wholesome condition, all stairways and the premises within a radius of thirty feet, shall be kept clean, and closets shall be regularly disinfected and supplied with disinfectants, and the commissioner of labor and factory inspectors may require all necessary changes, or any process of cleaning, painting or whitewashing which they may deem essential to assure absolute freedom from obnoxious odor, filth, vermin, decaying matters or any condition liable to impair health or breed infectious or contagious diseases; he shall prevent the operation of such shops or factories that do not conform to the provisions of this act, and cause the arrest and prosecution of the person or persons operating the same.

SEC. 3. No person, for himself or for any other person, firm or corporation, shall give out work to or contract with, any other person to perform such work necessary to make such goods mentioned in section 1, after having received notice from the commissioner of labor or factory inspectors that said latter person has not complied with the provisions of section 2 of this act, which notice shall remain in force, until said person has complied with this law, of which notice must be given to the employer by the commissioner of labor or the factory inspectors.

SEC. 4. Every such person, firm or corporation heretofore mentioned, shall obtain and keep a record of all persons to whom work is given out or contracted for, including their names and addresses, which record shall be opened to inspection of the commissioner of labor or the factory inspectors when called for.

SEC. 5. No person, firm or corporation shall receive, handle or convey to others, hold in stock or expose for sale, any goods mentioned in section 1, unless made in conformity with the sanitary conditions provided for and prescribed in this act; but this act shall

not include the making of garments or other goods, by any person for another by personal order, and when received for wear or use direct from the maker's hands, and all violations of the provisions of this act, shall be prosecuted by any of the factory inspectors with the advice and consent of the commissioner of labor.

SEC. 6. Any person, firm or corporation who shall violate any of the provisions of this act, shall upon conviction thereof, be fined in any sum not less than fifty dollars, nor more than one hundred dollars for each offense, or imprisoned not less than thirty, nor more than sixty days, or both; and in all prosecutions brought by or under the direction of the commissioner of labor for the violation of this act, he shall not be held to give security for costs, or adjudged to pay any costs, but in all cases where the accused be acquitted, or is found to be indigent, the costs shall be paid out of the county treasury of the county in which the proceedings are brought, the same as the costs in all other cases of misdemeanor.

SEC. 7. This act shall take effect and be in force, from and after its passage and publication.

Approved April 20, 1899.

CHAPTER 274.—*Employment of children.*

SECTION 1. No child under fourteen years of age shall be employed at any time in any factory or workshop or in or about any mine. No such child shall be employed in any mercantile establishment, laundry or in the telegraph, telephone or public messenger service, except during the vacation of the public schools in the town, district or city where such child is employed.

SEC. 2. It shall be the duty of every person, firm or corporation, agent or manager of any firm or corporation employing minors in any mercantile establishment, store, office, laundry, manufacturing establishment, factory or workshop or in the telegraph, telephone or public messenger service within this State to keep a register in said mercantile establishment, store, office, laundry, manufacturing establishment, factory or workshop in which said minors shall be employed or permitted or suffered to work, in which register shall be recorded the name, age, date of birth, place of residence of every child employed or permitted or suffered to work therein under the age of sixteen years; and it shall be unlawful for any person, firm or corporation, agent or manager of any firm or corporation to hire or employ or to permit or suffer to work in any mercantile establishment, store, office, laundry, manufacturing establishment, factory or workshop, telegraph, telephone or public messenger service any child under the age of sixteen years unless there is first provided and placed on file in such mercantile establishment, store, office, laundry, manufacturing establishment, factory or workshop an affidavit made by the parent stating the name, date and place of birth and name and place of the school attended of such child. If such child have no parent or guardian, then such affidavit shall be made by the child, and the register and affidavits herein provided for shall, on demand, be produced and shown for inspection to the factory inspector, assistant factory inspectors or any officer of the bureau of labor and industrial statistics.

SEC. 3. No person under the age of sixteen years shall be employed, required, permitted or suffered to work for wages at any gainful occupation longer than ten hours in any one day, nor more than six days in any one week, nor after the hour of nine at night nor before the hour of six in the morning.

SEC. 4. It shall be the duty of the commissioner of labor, the factory or assistant factory inspectors to enforce the provisions of this act, and to prosecute violations of the same before any court of competent jurisdiction in this State. It shall be the duty of the said commissioner of labor or the factory or assistant factory inspectors, and they are hereby authorized and empowered to visit and inspect, at all reasonable times, and as often as possible, all places covered by this act.

SEC. 5. The commissioner of labor, the factory or assistant factory inspectors shall have the power to demand a certificate of physical fitness, from some regularly licensed physician, in the case of children who may seem physically unable to perform the labor at which they may be employed, and no minor shall be employed who can not obtain such a certificate.

SEC. 6. Whenever it appears upon due examination that the labor of any minor over twelve years of age, who would be debarred from employment under the provisions of section 1 of this act is necessary for the support of the family to which said child belongs or for its own support, the county judge of the county where said child resides, the commissioner of labor or any factory or assistant factory inspector may in the exercise of their discretion issue, free of charge, a permit or excuse authorizing the employment of such minor within such time or times as they may fix.

SEC. 7. No firm, person or corporation shall employ or permit any child under sixteen years of age to have the care, custody, management or operation of any elevator.

SEC. 8. The words "manufacturing establishment," "factory" or "workshop" as used in this act, shall be construed to mean any place where goods or products are manufactured or repaired, dyed, cleaned or sorted, stored or packed, in whole or in part, for sale or for wages, and not for the personal use of the maker or his or her family or employer.

SEC. 9. Any person, firm or corporation, agent or manager of any corporation who, whether for himself or for such firm or corporation or by himself or through agents, servants or foremen shall violate or fail to comply with any of the provisions of this act or shall hinder or delay the commissioner of labor, the factory or assistant factory inspectors or any or either of them in the performance of their duty or refuse to admit or shut or lock them out from any place required to be inspected by this act shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not less than ten dollars nor more than one hundred dollars for each offense. Any corporation which, by its agents, officers or servants, shall violate or fail to comply with any of the provisions of this act shall be liable to the above penalties, which may be recovered against such corporations in an action for debt or assumpsit brought before any court of competent jurisdiction in this State.

SEC. 10. Any parent or guardian who suffers or permits a child to be employed or suffered or permitted to work in violation of this act shall be guilty of a misdemeanor and upon conviction thereof, shall be fined not less than five nor more than twenty-five dollars.

SEC. 11. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

SEC. 12. This act shall take effect and be in force from and after its passage and publication.

Approved April 27, 1899.

CHAPTER 292.—Protection of wages due laborers on public buildings—Contractor's bond.

SECTION 1. All contracts hereafter let for the erection, construction, equipment, repairs, protection or removal of any building of the State shall contain a provision for the payment by the contractor of all claims for labor and material, and no contract shall hereafter be let for the erection, construction, equipment, repairs, protection or removal of any building of the State, unless the contractor shall give a good and sufficient bond, to be approved by the governor, conditioned for the faithful performance of the contract, and the payment of all the claims for work or labor performed, and material furnished in and about the erection, construction, equipment, repairs, protection or removal of such building to each and every person entitled thereto.

SEC. 2. Any party in interest may maintain an action in his own name against such contractor and the sureties upon such bond required by section 1 of this act for the recovery of any damages he may have sustained by reason of the failure, refusal or neglect of said contractor to comply with the terms of said contract or any of the terms and conditions of the contract between said contractor and subcontractors.

SEC. 3. This act shall take effect and be in force from and after its passage and publication.

Approved April 28, 1899.

CHAPTER 330.—Notice of intention to leave employ and to discharge—Protection of employees as voters—Employment of children.

SECTION 1. Any person or corporation engaged in manufacturing, which requires from persons in his or its employ, under penalty of forfeiture of a part of the wages earned by them a notice of intention to leave such employ, shall be liable to the payment of a like forfeiture if he or it discharges, without similar notice, a person in such employ except for incapacity or misconduct, unless in case of a general suspension of labor in his or its shop or factory or in the department thereof wherein such employee is engaged.

SEC. 2. No person shall, by threatening to discharge a person from his employment or threatening to reduce the wages of a person or by promising to give employment at higher wages to a person, attempt to influence a qualified voter to give or withhold his vote at an election.

SEC. 3. No license shall be granted for a theatrical exhibition or public show in which children under fifteen years of age are employed as acrobats, contortionists or in any feats of gymnastics or equestrianism, when in the opinion of the board of officers authorized to grant licenses such children are employed in such manner as to corrupt their morals or impair their physical health.

SEC. 4. Any person who shall violate any of the provisions of this act shall, upon conviction, be fined in a sum not exceeding one hundred dollars.

SEC. 5. This act shall take effect and be in force from and after its passage and publication.

Approved May 3, 1899.

CHAPTER 332.—*Protection of employees as members of labor organizations.*

SECTION 1. No person, corporation, agent or officer on behalf of any person or corporation, shall coerce or compel any person or persons into an agreement, either written or verbal, not to join or become a member of any labor organization, as a condition of such person or persons securing employment or continuing in the employment of any such person or corporation, and no person or corporation shall discharge an employee because he is a member of any labor organization.

SEC. 2. Any person or corporation violating any of the provisions of this act shall be fined not less than two hundred dollars nor more than one thousand dollars, or be punished by imprisonment in the county jail not to exceed nine months or both.

SEC. 3. This act shall take effect and be in force from and after its passage and publication.

Approved May 3, 1899.

RECENT GOVERNMENT CONTRACTS.

[The Secretaries of the Treasury, War, and Navy Departments have consented to furnish statements of all contracts for constructions and repairs entered into by them. These, as received, will appear from time to time in the Bulletin.]

The following contracts have been made by the Office of the Supervising Architect of the Treasury:

BUFFALO, N. Y.—October 2, 1900. Contract with John Feist for erection and completion of building for life-saving exhibit in connection with Pan-American Exposition, \$3,749. Work to be completed before April 1, 1901.

ELGIN, ILL.—October 2, 1900. Contract with M. Yeager & Son, Danville, Ill., for construction, except heating, electric wiring, and conduits, of post-office, \$59,492. Work to be completed within three hundred and eighty working days.

MENOMINEE, MICH.—October 3, 1900. Contract with Hennessy Brothers & Evans Company, Chicago, Ill., for construction, except heating apparatus, electric wiring, and conduits, of post-office, \$35,745. Work to be completed within twelve months.

BLAIR, NEBR.—October 9, 1900. Contract with John S. Ketterman, Ida Grove, Iowa, for construction, except heating apparatus and electric wiring, of post-office, \$27,240. Work to be completed within one hundred and fifty working days.

CINCINNATI, OHIO.—October 18, 1900. Contract with Walton Iron Company for construction of lookout gallery in custom-house and post-office, \$2,397. Work to be completed within forty-five days.

PORTLAND, OREG.—October 20, 1900. Contract with Butler-Ryan Company, St. Paul, Minn., for interior finish, etc., of custom-house, \$98,193. Work to be completed within fourteen months.

PORTLAND, OREG.—October 23, 1900. Contract with Charles B. Kruse Heating Company, Milwaukee, Wis., for heating and ventilating apparatus for custom-house, \$21,233.

BOSTON, MASS.—October 25, 1900. Contract with Whittier Machine Company for elevator plant for post-office and subtreasury, \$39,850. Work to be completed within three and a half months.

WASHINGTON, D. C.—October 27, 1900. Contract with James Nolan & Sons for new plumbing and interior finish of toilet rooms for Treasury building, \$34,641. Work to be completed within five months.

ANNAPOLIS, MD.—October 30, 1900. Contract with Charles McCaul for construction of post-office, except heating apparatus, electric wiring, and conduits, \$64,000. Work to be completed within ten months.

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